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LECTURE.

*THE TREATMENT OF FRACTURES BY MEANS OF THE PLASTER-OF-PARIS DRESSING.**

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GENTLEMEN: I have been using plaster of Paris extensively for some twelve years in the treatment of fractures, and it is undoubtedly the best, as well as the cheapest, dressing for most cases. Notwithstanding the apparent simplicity of this dressing, it requires great care in its management in order to secure success.

I have found no dressing so satisfactory as the plaster, or silicate, for the treatment of broken bones in infants. I have recently treated two cases of broken femurs in very young children, aged respectively 3 weeks and 8 months, and, after trying various splints and apparatus, resorted to the plaster-bandage, which gave great satisfaction, and, as I have not known of this dressing having been especially recommended in very young children, I would call especial attention to the efficacy of this treatment.

The plaster-bandages should be applied in broken femurs from the middle of the foot to the hip, and a spica of the hip carried as high as the navel. Care should be taken that the bandage be thick and strong at the bridge which connects the parts which surround the hip with that which incloses the thigh. The leg should be flexed at the knee and at the hip to an angle of about 40 degrees, respectively, while the bandage is being applied. It is well to continue the ether for fifteen or twenty minutes while the plaster is setting.

I generally use chloroform in children, and the child should be allowed to sleep, as it usually will without awakening after the chloroform has been withdrawn, naturally and quietly for some time after the influence of the anæsthetic has passed off. The child should lie on its back with its leg on a small pillow. The principal difficulties met with in the use of plaster-dressing are:—

1st. To get a good calcine plaster.

2d. Keeping the rollers in stock without deterioration.

3d. Preventing the plaster from setting to a deformity, should the bones, as they are sometimes prone to do, become displaced while the plaster is getting hard.

4th. Getting the bandage off when the fracture is well or for examination.

5th. Limb getting rapidly too small for the cast.

6th. The time and trouble to get the plaster properly spread on the crinoline and rolled.

I shall now attempt to describe how these difficulties may be best overcome, and I will also describe and show you an apparatus which I have devised for the easy preparation of plaster-of-Paris bandages, as well as the ordinary rolls:—

1st. The difficulty of getting good calcined plaster is caused principally by the fact that it rapidly absorbs moisture from the atmosphere unless it be kept carefully excluded from the air. It is best, before buying, to test the sample.

* Delivered to the Third-Year Class at the Medico-Chirurgical College, Philadelphia.

Good calcined plaster has a smooth, fine feeling when rubbed between the fingers. After it has become partially hydrated by exposure it will become lumpy and feel coarse. A little should be mixed with water and tested as to its setting qualities. Having procured a good article, it may be kept for years without deterioration in air tight jars. About the best jars for this purpose are large specimen-jars with air-tight covers.

2d. Rolls may be kept in stock by keeping them immersed in jars with fresh plaster.

3d. To prevent the plaster-dressing from setting to a deformity where the bones have a tendency to be displaced, a compress may be placed under the flannel-bandage, or a piece of binders' board or felt placed over the flannel-bandage.

4th. By placing a piece of sheet-lead about an inch and a quarter wide under the plaster-bandage, and cutting down upon it before the plaster is quite hard, and then withdrawing the piece of lead by pulling upon the end of it, will make it quite easy to spread open and remove the dressing at any time after it has hardened. But it is difficult to cut down through a plaster-bandage without causing some disturbance of the relation of the bandage to the limb, or of the bones to each other; and I usually prefer to get along without the use of the lead, and take the more tedious method of cutting through the hardened plaster at the proper time. Cutting through the plaster may be facilitated by applying nitric or hydrochloric acid along the line of the intended incision.

5th. To prevent the limb from getting rapidly too small for the cast, the plaster-of-Paris bandages used as splints for broken bones, as a rule, should not be applied until after the swelling, or effusions, bruisings, or enlargements have to a great extent disappeared,—say from a week to ten days after the injury has been received, depending, of course, to some extent upon the amount of the swelling and the rapidity of its disappearances. Previously to the applying of the plaster-of-Paris dressing, temporary dressings and splints should be applied, and proper antiphlogistic treatment instituted to reduce the primary inflammations. At any time after the plaster of Paris has been applied, should the limb, as it often will by atrophy, become too small for the cast, a piece should be cut out of the cast, from a half-inch to an inch wide through its entire length, and bandages or straps applied around the plaster-cast sufficiently tight to draw it up to the limb.

6th. To overcome the trouble and time which it takes usually to get the plaster properly rubbed into the crinoline and rolled by hand, I have devised the instrument which I now show you, and will explain to you the proper method of its use. Any instrument-maker, or any student with sufficient mechanical ability or dexterity to be a successful surgeon, can make one. This machine does not cost more than any ordinary bandage-roller, and will roll all ordinary bandages with the greatest ease and facility; and, moreover, is so constructed as not to be liable to break or get out of order. When you wish to roll a plaster-of-Paris bandage you give the screw in the side one or two turns back, sufficiently to loosen the partitions. Having the crinoline bandages cut the proper width, you pass one end under the partition next to the crank, then fill the middle box with plaster of Paris, both under the crinoline and above it, first having pressed the partition down to the crinoline tightly, then raising it about the sixteenth of of an inch. By the height of this partition you regulate the thicknes of the plaster on the crinoline, catch the end of the bandage on the axle or shaft, and turn the crank backward; as the crinoline winds, the plaster is carried along sufficiently thick and sufficiently rubbed in to make an excellent plaster-bandage roller. The roller may be wound tightly by pulling upon the distant end of the bandage, or it may be wound loosely by allowing it to flow easily through the plaster. They should not be wound tightly, as it takes too long to soak them afterward at the time of their application. Neither should the plaster-of-Paris bandage be longer than four or five yards, as it would make them too bulky.

You can readily see that the plaster-of-Paris roller-bandages can be made as rapidly, as pleasantly, as cleanly, and as efficiently as a plain roller.

Having determined to apply a plaster-of-Paris dressing, you first bathe the limb with alcohol or whisky, rub it with a dry towel, and apply smoothly a flannel-bandage first. While doing so have your plaster-of-Paris rollers steeping, end upward, in warm water sufficiently deep to cover them, and containing about a tablespoonful of table-salt to a pint of water. Having squeezed out the surplus water

after the entire roller has been permeated, and having carefully ascertained that the broken bones are in their proper positions, you apply smoothly and rapidly, occasionally rubbing the hands over the layers of bandage, in order to blend the plaster of one layer into that of another, and so proceed until you have applied sufficient plaster of bandage to make a casing about a quarter of an inch in thickness. Sometimes a less thickness will answer, especially in children. While the bandage is hardening lay the limb in the desired position upon a pillow or other soft substance, so as to prevent the indentation of the bandage or the bending of the limb.

The great advantage of the plaster-of-Paris dressing is that you can get your patient out of bed and out of doors,—a very great advantage, one which is of the greatest importance to business men, as it enables them to get to their place of business or office, and have an oversight of their business, or its general management at least, which sometimes is worth thousands of dollars to them, besides the great improvement of the general health. The dressing can usually be left on six weeks.

ORIGINAL COMMUNICATIONS.

ON AMPUTATION OF THE CERVIX UTERI IN THE TREATMENT OF UTERINE CANCER AND CERVICAL INJURIES.

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AMPUTATION of the cervix uteri appears to me one of the few gynæcological operations less frequently resorted to than might be justified by the advantages derivable from its employment in some cases in which far graver and not more successful operations are too often performed.

In the following observations I shall discuss briefly, from the stand-point of my own clinical experience as well as from the literature of the subject, the expediency of the timely removal of the cervix uteri in cases of threatened or early existing malignant disease. Secondly, I desire to again urge the utility of this operation as a substitute for cervical trachelorrhaphy in certain cases of laceration and its consequences. These two subjects are, to a large extent, so closely connected that they may be properly considered together in this communication.

Frequency of Cancer of Cervix.—Cancer of the uterus is not only the most formidable, but is also unfortunately among the more frequent of the special diseases to which women are subject. Thus, according to statistics with regard to the comparative frequency of uterine cancer cited by Dr. Duncan, of 26,200 women examined by Professor Schroeder, 812, or 3 per cent., had cancer of the uterus; in 236 of these the portio vaginalis was attacked, in 181 the mucous membrane of the cervical canal, in 28 the body of the uterus, and in 367 the place of origin was undetermined. The time of life most subject to the disease is the period subsequent to the menopause. To this rule, however, many exceptions are found—one of the most remarkable instances of this kind that I have met with being the case of a girl only 16 years of age, who died on the day after her admission to my ward from exhaustion, consequent on a large encephaloid cancerous mass, growing from the cervix, and completely occupying the upper third of the vagina.

Cancer of Uterus generally Originates in the Cervix.—The chief points I desire to submit for discussion on this subject are—firstly, that cancer of the uterus, in the great majority of cases, originates as a local disease in the cervix, and if there recognized in time, and treated by immediate infra-vaginal amputation of the cervix, it may possibly be arrested. Secondly, that if not thus checked, the subsequent extirpation of the entire cancerous uterus, as advocated by some authorities, is an operation which, if not worse than useless, can seldom be resorted to with any great probability of ultimate success. And, thirdly, that in cases in which, as will be shown, there is a likelihood of cancer becoming subsequently developed in cicatricial tissue resulting from parturient lacerations, the cervix should be unhesitatingly removed as the only effectual preventive measure for a disease which, when established, there exists no reliable curative treatment.

Within the past twelve years a considerable number of cases of uterine cancer, chiefly epithelioma, have come under my observation in the gynæcological department of the Mater Misericordiæ Hospital, and in the great

majority of these the disease primarily manifested itself in the cervix, whence, if unchecked, it gradually extended upward into the body of the uterus. During this time I have, however, also met with some cases in which the uterus was disorganized by epithelioma of the endometrium, or by extensive cancerous infiltration into the submucous structure, or was occupied by sarcomatous or other malignant growths, long before any cervical disease was apparent, as well as with cases of uterine cancer, in which, whilst the cervix remained unaffected, the fundus and body of the organ were disorganized by extension of malignant disease, probably ovarian or tubal in origin.

Dr. Emmet has clearly shown that cancer of the uterus frequently commences within the cicatricial tissues, resulting from neglected parturient lacerations of the cervix. Mr. Jonathan Hutchinson points out that in many cases the first stage of cancer is that of inflammation; that "all inflammations are infective, and inflammatory processes may pass by almost imperceptible gradation into malignancy." "In more than 300 cases of cancer of the cervix, of which I have notes," observes Dr. Reamy, of Philadelphia, "but 1 occurred in a virgin, and but 10 in married women, in whose cases I could obtain no evidence of abortion or child-bearing. Can any one deny that such facts point strongly to the local origin of cancer in these cases at least? And can it be doubted that injuries inflicted upon the cervix during parturition have a direct or remote connection with this origin? Would it not be wise to repair these injuries, when they are appreciable, by whatever method it may be done most speedily and certainly?" Many years earlier a somewhat similar observation was made by my distinguished teacher, the late Professor Montgomery, in a paper of his on the "Incipient Stages of Cancer of the Womb," in which he clearly pointed out that, as a general rule, the first discoverable morbid change, which is the forerunner of cancerous affections of the uterus, takes place in and around the muciparous glandulæ or vesicles, sometimes called ova Nabothi, which exist in such numbers in the cervix and margin of the os uteri; these become indurated by the disposition of scirrhous matter around them, and by the thickening of their coats. Rokitansky also long ago remarked that cancer of the uterus generally limits itself to the vaginal portion and cervix in a defined and sharp manner. And he further remarks: "The primitive seat of cancer is always the cervix uteri, and first of all the vaginal portion. The primary appearance of cancer in the fundus uteri is limited to such extremely rare cases that what we have just said remains a fixed rule."

In relation to the same question we must, moreover, as the late Sir James Simpson well said, bear in mind the natural history of carcinoma uteri; and in illustration of this he quotes Dr. Walshe's observation: "Uterine cancer is commonly primary" and possessed of comparatively slight tendency to contaminate the system generally. In two important respects, therefore, uterine carcinoma presents conditions favorable for surgical interference; still, however, in order that a case may offer any chance of success, several conditions seem requisite:—

1. The disease must be in an early stage.

2. The morbid structure must be strictly limited to the lips or cervix, or, at all events, be distinctly situated below the line of reflection of the vagina upon the cervix uteri.

The above combination of circumstances is seldom met with, because the medical attendant is rarely consulted until the disease has passed the limits in question. Nevertheless, of eight cases referred to in Simpson's monograph on this subject here cited, in which he thus amputated the cervix, seven recovered perfectly. The same view is supported by more modern authorities, and, as Hart and Barbour point out, we may, in accordance with the researches of Klebs, Waldeyer, Virchow, and others, trace the origin of all these malignant growths either to the cervical epithelium of the cervical glands, the deepest layers of squamous epithelium on the vaginal aspect of the cervix, the connective tissue cells of the cervix, or the epithelium of the cervical canal.

Symptoms of Uterine Cancer.—The constitutional syptoms of uterine cancer, in its later stages, need not be here enlarged upon, being general emaciation; sharp, pinched, anxious facial expression; yellow, semi-jaundiced discoloration of the whole surface, and the well-marked hectic and other unmistakable evidences of the cancerous cachexia, when once the disease is fully establishsd. Nor, in this connection, is it necessary to dwell on the evidences revealed under the same circumstances by local examination, when carcinoma

had extended beyond the cervical zone, and when the characteristic pain, hæmorrhage, and discharge, as well as the symptoms caused by the pressure of the enlarged, misplaced, or adherent cancerous uterus, or consequent on the extension of the disease to adjacent parts, leave no room either for doubt as to the diagnosis or for hope as to the prognosis of the case.

The early symptoms of malignant disease of the cervix uteri, and the incipient progress thereof, are so obscure and ill-marked in their apparent consequences, and the frequency of the disease is such that it behooves us to examine most carefully for any of those symptoms of its existence which, however unreliable and obscure *per se*, yet in their aggregate may afford the careful observer sufficient grounds on which to base his diagnosis in such cases.

In like manner, once the cervical disease has attained the ulcerative stage, there can be no question as to its detection, though then commonly but too late, when, on digital examination, the cervix is found lower than normal, the uterus being bound down in the pelvic cavity by adhesion to the surrounding tissues, the os open, its lips, if not already destroyed, tumefied, or else, perhaps, presenting the stony hardness characteristic of the scirrhous form of disease. The cervical structure is then more or less deeply excavated by the subsequent ulceration; occasionally the entire os and cervix being thus eaten away, so as to lay the uterine and vaginal cavities into one, before any suspicion of the nature of the case has called for examination. By the speculum the characteristic found — irregular, thickly-corroded ulcer, covered with a gray, viscid putrilage — now comes into view, whilst, if any possible doubt could then exist, this would be cleared up by the presence of the peculiarly fetid, ichorous, or watery discharge attendant on open cervical cancer.

Without dwelling further on these symptoms, what I would rather desire to impress here is the possibility of recognizing the earliest incipient stage of cervical cancer long before any pain, hæmorrhage, or characteristic discharge is observable, on careful examination of the cervix, by evidences which were well described by the late Dr. Montgomery, but which are generally passed over without sufficient notice by later writers, as well as by microscopic examination. On careful exploration at an early period in such cases, as Dr. Montgomery pointed out, the margin of the os uteri is found hard, and often slightly fissured, and projects more than is usual, or than is natural, into the vagina, and is irregular in its form. In the situation of the muciparous glands there are felt several small, hard, and distinctly-defined projections, almost like grains of shot or gravel, under the mucous membrane. Pressure on these with the point of the finger gives pain, and the patient often complains that it makes her stomach feel sick. The cervix is, in most instances, slightly enlarged and harder than it ought to be. The circumference of the os uteri, especially between the projecting glandulæ, feels turgid, and to the eye presents a deep-crimson color, while the projecting points have sometimes a bluish hue.

In these cases, according to Professor Schuata, of Prag, it is possible to make an early diagnosis only by regarding every case of catarrh and erosion with suspicion, and by examining them very carefully as to whether we can discover somewhere a small nodule, which must be regarded as cancerous. The age and clinical history of the patient, hæmorrhages, and inspection of the vaginal portion will teach us that such erosion will show some suspicious points. Such points have the following peculiarities: On the surface of the erosion we find a small nodule projecting which is dark-red or yellowish-red, bleeding very easily. These nodules seem, at first, quite innocent; nevertheless, when excised, they present under the microscope all the characteristic signs of cancer of the uterus. The future of this disease will be better if we operate early. This, however, depends on our early diagnosis. "In every case," continues Schuata, "will the excision of a suspicious nodule be necessary." This is quite a harmless and painless procedure.

Under these circumstances the diagnostic utility of the curette, as recently here well shown by Dr. Smyly, becomes unquestionable; and for this purpose its cautious employment, so as to bring away a sufficient amount of the abnormal tissue for microscopic examination, should immediately be resorted to in every case of suspected or possible adenomatous or cancerous degeneration.

Expediency of Early Amputation of a Cancerous Cervix, and its Results.—The question of the expediency of operative interference in these cases, by removal of the cancerous cervix,

must be determined on similar principles to those recognized in all other forms of malignant disease. Thus, for instance, no surgeon would, I think, be justified in amputating the cervix in cases where the cancerous cachexia was well established and obvious in the general aspect of the patient, or where the disease was either developing with unusual force and rapidity, or else had extended beyond the cervical zone, so as to render it impossible to thus remove completely the implicated part.

In a large number of instances, however, the disease, if sufficiently early recognized, may, I believe, be completely and permanently arrested by the infra-vaginal amputation of the cervix by the écraseur and the free cauterization of the stump, without any necessity for resorting either to Schroeder's more complicated flap operation, or to the supra-vaginal method of accomplishing the amputation of the uterine neck adopted by the same distinguished authority, the results of which are not, I think, such as should lightly lead us to induce our patients to submit to its risks, as in 13 out of 19 cases the disease recurred within 4½ months of its performance, whilst the mortality was 4 in 37.

At a meeting of the Obstetrical Society of Berlin, held October 23, 1886, Hofmeier reported the number and results of Schroeder's partial amputation of the uterus for cancer, and the results of total extirpation by the same operator. The report included all of the cases which had been operated upon from October 1, 1878, to October 1, 1885. During that period there were 118 partial amputations, with 10 deaths—mortality, 8.5 per cent.; and 48 total extirpations, with 12 deaths—mortality, 25 per cent.

In 1882 Pawlik published a report of 136 cases of cancer of the cervix which had been treated in the first gynæcological clinic of Vienna by means of the galvano-cautery, the observations extending back to 1861. The mortality from the operation, although not exactly stated, must have been exceedingly small—apparently not over 3 or 4 per cent. By amputation with the hot iron, Schroeder, out of 13 cases, had an operation mortality of $7\frac{7}{10}$ per cent., and of the survivors 42 per cent. remained well at the end of eighteen months to two years. Carl Braun and Simpson cite instances of patients who were operated upon in this manner, and who had continued alive and well for a quarter of a century.

Four years ago this subject was fully discussed in the London Obstetrical Society, where Dr. Godson exhibited specimens from cancerous cervices which he had amputated, and in which there had been no recurrence of the disease after a lapse of six and three and one-half years, respectively, after the operation.

According to Ruge and Veit, cancer of the portio vaginalis has a very slight tendency indeed to spread into the cervix, but almost invariably spreads out laterally into the fornices of the vagina and the ligaments. "What possible advantage, then," asks Dr. Duncan, "can be expected in these cases by removing the uterine body (which is unaffected) over that gained by supra-vaginal amputation, which gets rid (as far as the uterus is concerned) of the disease? On the other hand, cancer of the mucous membrane of the cervical canal spreads up along the canal and into the uterus, whilst it only at a late period (or even not at all) attacks the os uteri."

I need not here refer in detail to the cases in which I have myself removed the cervix, inasmuch as I have found it very difficult, as a general rule, to trace accurately the subsequent history of hospital patients once they are lost sight of, after their discharge from the wards. All I can say on this point—without at present here referring to some of my earlier successful cases—is, that within the past eight years I have amputated the cervix in 18 cases for cancer, or what appeared to me to be incipient cancer; and that all the patients thus treated recovered from the immediate effects of the operation, and were discharged as convalescent. In 4 of them the disease recurred either in the uterus or elsewhere within a year; in 2 it returned within two years; in one instance the patient returned two and one-half years subsequently with a large, cancerous ulcer of leg, from which she died shortly afterward; and in another it recurred two years later; 10 cases have continued, as far as I have learned, in good health.

Considering, therefore, the extreme liability to the occurrence of cancer in the vicinity of cervical lacerations, the difficulty of early recognition of the disease, and the great uncertainty of treatment by any operation after the disease has become evident, I would venture to urge the removal of the cervix in all cases of

extensive areolar hyperplasia consequent on parturient laceration as a preventive of the possible development of uterine cancer. This rule of practice may be objected to as involving an unjustifiable and meddlesome surgical interposition in cases where the disease might never occur were the patient left unmutilated by the removal of the cervix uteri. But though this may possibly have been the case in some of the instances in which I have performed the operation in question, I shall be content to bear that reproach with perfect equanimity as long as I feel satisfied, as I do, that by its adoption I have been instrumental in any instance in warding off a disease so dire as cancer, which, as before observed, clinical experience has proved most liable to attack the cervical tissues in the cases above referred to.

Method of Operating.—Amputation of the cervix may be accomplished by either the infra- or supra- vaginal methods, and of these, under ordinary circumstances, I much prefer the former. In its performance we may use either knife, scissors, or galvano-cautery, or ordinary chain or wire écraseur. In my own practice I have, in most instances, employed the latter with very satisfactory results, although its use was objected to by the late Dr. Marion Sims, on the grounds that it makes a lacerated surface to heal by granulation, which takes a long time, often leaving the os tincæ contracted. Another objection to it is the uncertainty of amputating just where we place the chain, which often draws in more tissue than we intend, and removes more than we wish. So great has been this trouble, that some of the German surgeons have given up the écraseur altogether in operations on the neck of the womb, because the attachment of the bladder and, in some instances, the posterior *cul de sac* of the vagina have been injured, and even the peritoneal cavity opened by its greedy grasp. I have not myself observed the occurrence of any of the mishaps thus referred to by Dr. Sims in my own experience of the use of the steel-wire écraseur for amputation of the cervix uteri.

In amputation of the cervix, the patient being in the ordinary lateral semi-prone position, and the parts well exposed by the duck-bill speculum, the uterus should be so thoroughly drawn down by forcible traction with a strong vulsellum that the cervix protrudes well beyond the vulva, so as to elongate the structures and allow of the wire of the écraseur being applied as high above the diseased portion as possible, and above this again the uterine neck should be transfixed by a stout wire ligature, so as to prevent subsequent retraction and facilitate the full use of the cautery, which I regard as essential. The advantages following the use of the actual cautery after removal of the cervix for cancerous disease are, I believe, unquestionable, and may probably be due, as M. Sédillot has considered, to the creation thereby of an adventitious fibrous tissue of low vascularity, which is more or less refractory to morbid change, and which acts as a barrier to the recurrence of the disease.

Extirpation of the Entire Uterus for Cancer as an Alternative Operation.—In this connection it appears to me necessary to refer to the comparative advantages claimed for the only alternative operation proposed for cervical amputation in cases of cancer,—namely, the entire extirpation of the cancerous uterus. In so doing I shall not attempt to discuss fully the respective merits or demerits of either the vaginal method, or the supra-vaginal or abdominal operation introduced by Dr. Freund, or any of the still more recent modifications of hysterectomy suggested for this purpose. I may, however, cite sufficient facts to justify the opinion that their immediate risks, as well as the very small percentage of cases in which any of these procedures can be resorted to with any prospect of permanent benefit, are sufficient to exclude them from the position of general operations of selection, even in a disease so fatal as that under consideration.

The high authority of Dr. Martin, of Berlin, is deservedly recognized on all gynæcological questions; nevertheless, I would venture to express my emphatic dissent from the conclusion he has formulated in a paper in the Transactions of the last International Medical Congress on this important subject, in which he says: "I recommend the vaginal extirpation of the uterus as the operation—as the means—which we ought to apply in cases of cancerous diseases of the uterus as long as the disease is limited to the uterus itself." For my own part, bearing in view the enormous mortality supervening on operations for the extirpation of the cancerous uterus, whether performed by abdominal or vaginal methods, as well as the common recurrence of the disease in those who survive the immediate consequences of such operations, I

cannot regard their employment as generally expedient or justifiable.

An excellent *résumé* of the earlier literature of the vaginal operation for extirpation of the uterus, down to that date, was given by Dr. Condie nearly forty years ago in the American edition of the late Dr. Churchill's work on "Diseases of Women," and from this we learn that, according to Boivin ("Diseases of the Uterus," p. 248), Palletta was one of the first, if not the first, who performed this operation without being aware that he had extirpated more than the cervix uteri. Since that time it has been performed once by Sauter, twice by Siebold, once by Holscher, four times by Blundell, once by Barnes, once by Lizars, three times by Recamier, thrice also by Langenbeck, once by M. Dubois, once by M. Delpech. Of all the 19 patients, 16 died in consequence of the operation, 1 as late as the fourteenth day (Langenbeck's), another on the fourth (Barnes'), most of them on the following, or third at the latest; some in a few hours, or even a few moments after the operation.

Dr. Blundell performed it four times; 1 case recovered, 3 died shortly after the operation. He remarks: "If cancer of the lip may be removed with success, I should be inclined to hope that the same success might attend extirpation of the malignant scirrhus of the uterus." ("Diseases of Women," p. 180.)

Velpeau says that the operation has been performed 21 times in twenty years, and of all these not one has been permanently cured. (Méd. Operatoire, p. 162.)

In a valuable communication to the London Obstetrical Transactions, 1886, "On the Extirpation of the Entire Uterus" in certain cases of cancer, already referred to, Dr. William Duncan has collected from various authorities the particulars of a large series of cases of these operations, of which 137 were by the abdominal method, with 99 deaths (being a death-rate of 72 per cent.), and 276 were cases of vaginal extirpation, with 79 deaths (being a death-rate of 28.6 per cent.).

"Owing to the frightful mortality attending the abdominal operations for the removal of the cancerous uterus," says Dr. J. Reeves Jackson, of Chicago, in an able paper read before the last International Medical Congress, "not less than 72 per cent., and probably considerably more, it has been generally abandoned, except in a comparatively small number of cases in which the vaginal method is inapplicable. The mortality of kolpo-hysterectomy, according to the statistics compiled by Dr. Post, is shown to be 27 per cent. in 341 cases. This is 1 per cent. less than the result of the first 29 operations, collected by Hegar and Kaltenbach, and published six years ago, and 2.4 per cent. greater than the result in 256 cases, published by Mundé, in September, 1884. The statement has been made that the mortality of the operation is steadily lessening year by year. While this may be true, these tables hardly show the fact. In the case of a few operators improvement has unquestionably occurred, but it is by no means general. In those who survive the operation, recurrence takes place on an average in about four months, and death in fourteen months (Sanger), so that the survivors of these 341 operations, numbering 248 persons, would give a total of 289 years, whereas, if uninterfered with, or treated only by palliative measures, they would have lived an aggregate of 413 years—a difference of 125 years. This number added to the 155, the immediate loss by the operation mortality, makes a total of 279 years. The history of surgery surely fails to furnish a parallel to this."

The conclusions with regard to the expediency of the entire extirpation of the cancerous uterus, arrived at by Churchill and Gendrin some forty years ago, are thus, I fear, only too well borne out by the general results of the incomparably better and more scientific methods now employed for the same purpose, and may be here cited. "After," says the former, "a careful examination of the results of the operation, when the uterus is *in situ*, it is really difficult to find adequate reasons in its favor, except the repugnance which every one must feel to give up entirely the hope of affording relief from the most agonizing sufferings to which the female sex is exposed." (Churchill's "Diseases of Women," p. 278.)

"It is evident," observed M. Gendrin, "that the extirpation of the uterus is one of the gravest and most painful operations in surgery, since it is most fatal. It ought not to be undertaken except with great prudence, nor unless it is probable that the disease is perfectly removable. The signs of this limitation of the disease to the uterus, and of its mobility, are to be acquired by the use of every mode of examining the uterus, but, unfortunately, these means are not always trustworthy. Very able men (MM.

Saute and Roux) have overlooked the extension of the disease to the ovaries and Fallopian tubes, which are often attacked when the body of the womb is affected. We must conclude that in many cases it will be wiser to abstain from the operation.

In considering the respective merits of the early amputation of the cancerous cervix, and the necessarily later complete extirpation of the implicated uterus, the position and surroundings of this organ should, moreover, be borne in view; and especially important in this connection, as Mr. Alban Doran has observed, are the recent researches of Mierzæiosky and Leber on the dense net-work of lymphatic plexuses surrounding the cervix, and emptying their contents into two large trunks, passing along the broad ligament to the obturator gland, and thus favoring the rapid extension of the cancerous elements into parts almost beyond the possibility of the complete removal of the infected tissues. Under such circumstances there is, I fear, little to be ultimately gained by the more heroic procedure, and our main reliance must rest on the early recognition of the cervical disease, and its prompt treatment by the amputation of the neck of the uterus above the limits of the cancerous infection.

Even in extensive adenoma of the uterus, in which the cavity was filled and enlarged by the malignant villous outgrowth, and the patient exhausted and miserable from the pain, hæmorrhage, and fetid discharge, I have, without resorting to extirpation, in several instances succeeded not only in relieving those symptoms, but also, as I believe, in materially prolonging the life of the patient, simply by thoroughly scooping out and removing the diseased structures. In two of these cases almost all the uterine parenchyma was thus so extensively scraped down as to leave only a thin subperitoneal shell, and in all of them, after curetting, the raw surfaces were treated with either the perchloride of iron or chloride of zinc. It should be added that, although the disease ultimately returned, and that generally within a year (save in one case in which the patient survived for upward of two years and then died from other causes), yet the amount of comfort and relief to mental distress, as well as to intense physical suffering, thus afforded was beyond question.

At the same time there can be little doubt as to the propriety, in some urgent and otherwise unrelievable cases of fundal-uterine cancer which are rapidly progressing toward their fatal issue, and are attended with much suffering, of resorting to whatever measure may afford any reasonable possibility of protracting life or of relieving suffering. And under such circumstances extirpation may be expedient, even if it were not capable of effecting in our hands all that has apparently been obtained in Berlin by this operation in the practice of Professor Martin, who states that in 44 extirpations of the uterus by the vaginal method during a period of seven years, the results, excluding the immediate mortality of the operation, were 9 relapses within the first year, 4 relapses at later periods, and 31 recovered up to the date of his report.

Amputation of Cervix as a Substitute for Trachelorrhaphy.—In the Transactions of the Washington Meeting of the International Medical Congress, and elsewhere, I have endeavored to show the advantages of amputation of the cervix uteri over Emmet's operation for the repair of cervical lacerations in certain cases; and, as this subject seems to me as deserving of fuller consideration than it has yet received in this country, I now venture to re-submit some of my views thereon as far as they have been confirmed by more recent experience.

In the last edition of his excellent treatise on gynæcology Dr. Emmet has kindly referred to my views as to the frequency and importance of the obstetric complications arising from cervical laceration; still, neither this point nor the advantages which I believe are obtainable from amputation of the mutilated and hypertrophied cervix over trachelorrhaphy in certain cases of stellar and extensive bilateral laceration are, I think, sufficiently recognized.

I may, therefore, in this connection, briefly refer to the increasing frequency of cervical lacerations in recent gynæcological practice and to the causes assignable for this, and point out the parturient and puerperal troubles consequent on these lesions; and, lastly, I shall briefly recapitulate my clinical experience of the treatment of this accident, more particularly in reference to the utility of amputations of the cervix in some cases of extensive bilateral and stellar lacerations. The latter, when met with in a state of chronic hypertrophic disease, cannot always be remedied by trachelorrhaphy, and may result in life-long misery, even when not eventuating, as already

shown is too often the case, in cancer of the cervix uteri.

With regard to the frequency and pathological importance of cervical lacerations generally, my views are entirely in accord with those of Dr. Emmet, namely, that their importance cannot be exaggerated, since at least half the ailments amongst those who have borne children are to be attributed to lacerations of the cervix.

Cervical lacerations are unquestionably now more commonly met with than was the case in my earlier experience. This fact is probably ascribable to the larger proportion of assisted deliveries in recent midwifery practice before the sufficient natural dilatation of the os uteri. As I have before observed, the majority of child-bearing patients who present themselves for uterine examination at my hospital are found to have sustained some degree of cervical laceration, varying from a mere fissuring of the os to the most extensive stellate laceration of the cervix. Even the former must be regarded as a condition of some immediate pathological importance, whilst the latter lesion is of still greater consequence in its secondary results, and its reparative treatment is often followed by the complete subsidence of chronic pelvic complaints, formerly misinterpreted and ascribed to other morbid conditions or displacements of the uterus.

The effect on subsequent delivery of cicatrices resulting from cervical lacerations is a matter of practical obstetric interest, these being more frequently the cause of rigidity of the os and tedious labor than is commonly supposed. In my own practice I have seen complete uterine occlusion thus occasioned.

Laceration of the cervix, caused by the premature use of the forceps in the first stage of labor, or from precipitate natural delivery, is, moreover, a subject of considerable importance as one of the causes of flooding. I have before drawn attention to cases of post-partum hæmorrhage thus occasioned, of which I have met with many instances. And I may again repeat that there is reason to anticipate that when the practice recently advocated of applying the forceps before the natural dilatation of the os uteri becomes generally adopted, as seems likely, the next generation of midwifery practitioners will thenceforth have an ampler opportunity of witnessing this accident than was the case in the practice of their possibly slower but certainly safer predecessors in the obstetric art; for, although some authorities hold that the duration of labor, rather than the method of delivery, is the chief factor in the causation of fissurings of the os and cervix, it seems quite evident that no process of natural dilatation, however rapid, can be so liable to occasion rupture of the circular fibres of the os and cervix as its forcible manual extension, in efforts to complete delivery, by version or the forceps. Some years ago I brought cases before the Dublin Obstetrical Society, in which I had been called in consultation, where the cervix had been thus torn through by the abuse of the double-curved midwifery forceps. The same accident have I seen from version, where the hand was forced, rather than insinuated, into the uterine cavity before the full dilatation of the os; and have been consulted when similar consequences had followed undue manual violence in the removal of a retained placenta. In several cases of this kind I have traced hæmorrhage after delivery to its source in the injured vessels of a lacerated cervix.

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The special liability to cervical injuries under these circumstances is self-evident, and their physical evidences are obvious in the hypertrophied, truncated, fissured, or lacerated cervix, with its irregularly-gaping os, semi-concealed by a glairy or muco-purulent discharge, through which the everted endocervical mucous membrane may be seen extruding in too many of our gynæcological patients who have borne children, the result of injudicious or meddlesome midwifery practice.

In a medico-legal aspect, and especially as a proof of previous delivery, cervical laceration is further of importance, since by no other circumstances can the evidence of this injury be produced. On the other hand, the non-existence of such cicatrices or fissures is no proof of non-delivery, as the fissuring may have been so slight as to heal within the puerperal period, leaving no obvious traces of the injury.

Cervical Injuries in Relation to Chronic Uterine Disease.—The connection between laceration of the cervix uteri and many of the chronic disorders of women, formerly exclusively ascribed to subacute inflammation of the uterus, and especially to congestion or ulceration of the cervix, has been clearly established. In such cases the lining mucous membrane is forced down through the gaping edges of the rent as

soon as the patient rises from the lying-in bed. This cervical extropium is soon a focus of irritation, spreading upward and causing endocervicitis, the edges of the rent becoming the seat of erosion, or chronic follicular ulceration, the hardened cicatricial tissue around the rent, after some time, assuming a distinctive character, and becoming a veritable neoplasm. A more immediate result of bilateral cervical ulceration is subinvolution of the uterus, which, as well as pelvic cellulitis and other morbid conditions, may in many cases be ascribed to this cause. In the first instance, the inflammation, extending upward from a cervical wound to the body and fundus uteri, effectually arrests the natural process of involution. In the latter it spreads along the ligaments, giving rise to para-metritis and salpingitis, or reaches the ovaries, thus causing ovaritis or para-ovaritis.

Cervical Lesions as a Cause of Uterine Displacements.—Lastly, as a cause of uterine flexions and displacements cervical lacerations are of practical interest, for, if the resulting cellulitis affects either of the suspensory ligaments so as to cause its thickening and shortening, the uterus will thereby be thrown out of its normal position, and a constant strain and sense of wearing pelvic pain must be occasioned. These symptoms can only be relieved either by attempting to restore the ligaments to their normal condition by Alexander's operation (in the permanent utility of which I have myself very little faith, as I believe that the shortened ligament must again become stretched if the cause of its lengthening remains uncured), or, and more easily, by taking off the strain of the down-dragging uterine weight by a properly-adjusted pessary. Hence the benefit experienced from mechanical support in many cases of chronic, bearing-down pelvic pain, which is probably as often consequent on cervical laceration as on any primary displacement of the uterus.

Treatment of Cervical Lacerations.—In the majority of instances the direction of the fissure is antero-posterior, and it may extend through both walls of the cervix, or, as is more commonly the case, be limited to its anterior aspect. When thus situated, these fissures, if superficial, often occasion very little trouble, and in many such cases they become healed without any special care during the period of convalescence after delivery. But when, from the abuse of instruments or manual dilatation of the os to expedite delivery, or for the removal of a retained placenta, or else from the unusual size of the child, or any other circumstance, the cervix is extensively lacerated, either bilaterally or split into a number of sections by multiple or stellar laceration, then the results of the accident obviously become far more serious, leading to one or other of the pathological conditions just described. Under these circumstances, as a rule, surgical treatment—viz., either trachelorrhaphy or amputation of the cervix—will be necessary. The great and general value of the former, and the procedure by which it may be accomplished, are too familiar to need any reference in this connection.

Advantages of Cervical Amputation in the Cases Referred to.—My present object is chiefly to call attention to the fact, on which I have elsewhere dwelt—namely, that trachelorrhaphy, however useful in all appropriate instances, is by no means invariably applicable in cases of cervical laceration, occasionally failing even under apparently favorable circumstances, and that in some instances we may best treat the long train of symptoms consequent on the injuries by the amputation of the lacerated cervix.

This view is not in accordance with Dr. Emmet's opinions. But though none can more fully recognize Dr. Emmet's authority on this subject, which he has made so peculiarly his own, yet I cannot agree with him that amputation of the cervix, except for malignant disease, is necessarily malpractice. The removal of the neck of the uterus for so-called hypertrophy or for abnormal elongation, is also deprecated by Dr. Emmet, who, moreover, is equally opposed to the application of the cautery, or of caustics, to heal a so-called ulceration on surfaces that may possibly be brought into a healthy condition and united by his operation. "If," in Dr. Emmet's words, "this so-called ulceration, or this elongated cervix, should prove to be merely a laceration, the sides of which can be brought together and united so that the integrity of the parts will be as perfect as if the accident had never occurred, then to resort to amputation is malpractice." This proposition is self-evident. But in that little *if* lies the entire question; and highly as I value trachelorrhaphy, and successful as I have found it in many appropriate cases, I must repeat that in certain cases of

extensive stellate lacerations of long standing, with considerable loss of substance, and accompanied with chronic inflammatory conditions of the adjacent structures, or cellulitis, as well as with great hypertrophy or hyperplasia of the injured cervix, caused by inflammatory exudations, trachelorrhaphy is inapplicable; and such cases may, I believe, be better treated by the amputation of the mutilated and diseased cervix. Moreover, this operation, according to my experience, is fully justifiable in some cases of non-traumatic hyperplasia and chronic parenchymatous cervicitis, more especially, as I have already pointed out, in patients who are hereditarily predisposed to malignant disease, as well as in some instances of cancer of the cervix, either as the most certain prophylactic of uterine cancer, or else as a possibly curative measure in the early period of the disease, or if for nothing else than merely to relieve suffering, if not to prolong life in its latter stage. Finally, although in the majority of cases of laceration in which I have removed the cervix, the patients have since remained sterile, still, on the other hand, I do not therefore question the fact averred by other gynæcologists that this operation may possibly be called for in some cases of sterility, resulting from the mechanical obstacle to impregnation offered by a greatly hypertrophied, elongated, and conical cervix ureri.

Within the last few years I have, for the before-stated reasons, amputated the cervix in a considerable number of cases, and so far, at least, I have had no experience of the disastrous consequences which some writers insist on ascribing to this operation.

In conclusion, I have only to express the hope that the foregoing observations may conduce to a more frequent and earlier resort to amputation of the cervix, in the prevention and treatment of uterine cancer, as well as a substitute in appropriate cases for cervical trachelorrhaphy. And although my views on the latter point have been elsewhere expressed, yet, inasmuch as the subject discussed is one, as I believe, very unduly neglected in this country, I have included some of the opinions I have long maintained on this subject, together with others which may be found novel, in the hope of inducing the thorough discussion of two closely-connected questions, which appear to me of practical importance and well deserving the consideration of the Academy.

*HYPNOTISM.**

By CLARK BELL, Esq.,
President of the Medico-Legal Society of New York.

THE medical profession in America do not give this subject the attention its importance deserves.

We know of no medical man of prominence in America who has publicly identified himself with the investigation of this science as some of the most eminent men in foreign countries have recently done.

Dr. Wm. A. Hammond, some years ago, gave the subject considerable attention, and gave public experiments before the Medico-Legal Society of patients under its influence, exhibiting the usual phenomena of unconsciousness to pain and entire domination of will-power and of action.

The late Dr. Geo. M. Beard was also a student of these phenomena, and, had he lived, would, doubtless, have contributed to, and have been now conspicuously at the head of, the science here. A few physicians here and there have touched it on the border-lines, but, as a profession, medical men in America know little concerning it, and the public, who naturally look to them for advice on such subjects, are entirely ignorant of these phenomena, or the progress made abroad in the investigation of the science.

Hack Tuke, Ireland, Matthias Roth, Gurney, Myers, in England; Charcot, Binet Fére, Gilles de la Tourette, Paul Regnard, Fontan and Séquard, Azam, H. Beaunis, E. Berillon, Ochorowicz, Ladame, Delboeuf, Montin, Voisin, J. Luys, and others in Paris; Lombroso, Tamburini, Sepilli, and others in Italy; Heidenhan and von Fränkel in Germany; Gessman, Obersteiner, and Kraft-Ebing in Austria; Broberg and Fred. Björuström, of Sweden, are some of the names of recent authors abroad who treat upon this subject as a distinct branch of science. The experiments at Salpêtrière, conducted under the guidance of Professor Charcot, have gone to the scientific world in detail for some years, and an International Congress of Hypnotism, experimental and therapeutic, was held at Paris, from August 8 to 12, 1889, attended by distinguished men from Russia, Holland, Switzerland, France, and other countries, where papers

* Read at the annual meeting of the Medico-Legal Society, December 18, 1889.

were read upon the propriety of interdicting, by law, public exhibitions of hypnotism, and for regulating its use or practice by legal statutes, as well as upon other phases of the science. The Paris Revue de l'Hypnotism is entirely devoted to this science.

In the Medico-Legal Society, in January, 1889, the chair called attention to the medical neglect of this subject, and named a committee to make investigations through the year and report their labors to that body. The majority of the committee did not go forward with the work, and the committee was reorganized, but have, so far as known, made no report, if even they have done any work whatever since their reorganization.

At the recent session of the Psychological Section of the British Medical Association, held at Leeds, August 15, 1889, under the presidency of Dr. Hack Tuke, Dr. Auguste Voisin, one of the physicians of la Salpêtrière, Paris, made a communication upon the treatment of "Insanity and Neurosis by Hypnotic Suggestion," and on the application of the method to the moral and instinctive perversion of backward and imbecile children, in which he is reported to have said:—

"Until within the last few years no serious attempt has been made in this direction, and that it was generally supposed that the insane could not be hypnotized. He had been able to develop this method in his hospital and private practice. Catalepsy ought to be carefully avoided, because the hypnotized individual ought to be able to preserve the use of his senses, especially of hearing. He was convinced that hypnotism was only useful when it was possible to make use of suggestion; and he was firmly of opinion that, as Braid had said, the hypnotic state originated in the nervous system of the hypnotized person. The basis of hynotic treatment and of suggestive therapeutics detailed the various categories of the insane with regard to whom he had made observations. By this treatment he had cured persons suffering from hallucination and delusions, and from disturbances of special and general sensation. Suicidal ideas and acute and furious mania had disappeared under the use of this method. Cases of insanity were cited which had only been calmed after several hours. The treatment had also succeeded in the mania and agitation observed during the catamenia. Patients in this category had even remained asleep for from six to eight days. The method had also succeeded in dipsomania and in morphinomania. He had also been fortunate enough to cure obstinate cases of onanism in this way, and had applied the method *á la moralisation des enfants dépravés*. He had thus completely transformed their habits of thought, and had brought them to love the good, whereas formerly they had only loved the evil. He had also succeeded in curing amenorrhœa in the insane, which was a frequent cause of nervous and mental troubles; he particularly insisted upon this point as proving it was possible to influence the functions of the sympathetic system. The relapses were not more than one-tenth of the cases treated, and this was probably due to the repetition of treatment over a few months. However, the results were definite, and he hoped the practice would be tried in England and have good results.

"He said that for success in the hypnotizing of patients many attempts were frequently necessary. Hence, he could not give a suitable demonstration at Wakefield, but his place at Paris was open to all the physicians of the Continent. It was immoral to hypnotize healthy persons, being only proper in the case of the diseased. He repeated his statements as to the ailments which could be serviceably treated. For success varied processes were often necessary."

The local press have taken up the discussion in America, which the physicians have neglected.

The New York Ledger, in its recent number, treats the subject editorially from its social as well as its legal aspect, and so ably that we give the article entire:—

"HYPNOTISM.

"The importance which hypnotism may assume from a social and legal point of view was recently exemplified by an experiment performed by an English clergyman, and described in a London medical journal. It seems that a confirmed inebriate was thrown by the ordinary simple methods into a trance, and while in the hypnotic state he was informed that any indulgence in alcoholic beverages would be immediately followed by vomiting. So irresistible was the effect of the suggestion, that after emergence from the trance the patient suffered a violent attack of nausea whenever he

attempted to drink any kind of liquor. The result was that he became a total abstainer.

"This is, so far as we know, the first case in which the hygienic and ethical significance of the phenomena of hypnotism observed at the Paris hospital of the Salpêtrière has been demonstrated. In the course of the investigations that have for some years been prosecuted at that institution, it has been shown that persons possessing an unusually nervous organization can easily be hypnotized, and that a suggestion or an order impressed upon them while in this condition will be subsequently carried out, although they will be entirely ignorant that such an order has been given. A wooden dagger, for example, was placed in the hand of a hypnotized young woman, and she was directed to steal behind one of the persons present and drive the dagger into his heart. Upon awaking from the trance she obeyed the injunction in every particular, and there was no doubt in the minds of the observers that, had the weapon been steel, the blow would have been mortal. Interrogated respecting the motive of her conduct, she averred that she had acted under an uncontrollable impulse, for which she could not account. Many other experiments of a like decisive character were made at the hospital in question, some of which are recorded in a work lately published in the International Scientific Series.

"From such facts, the inference was obvious that the power of producing hypnotic phenomena might, in the hands of unscrupulous operators, be fraught with great danger to the community. The whole science of medico-legal jurisprudence might have to be reconstructed, should it become necessary in many cases to shift the responsibility for crime from the hypnotized agent to the antecedent suggester of the deed. It would also seem to follow that the superinducing of hypnotic trance, like the administration of poisons, should be carefully regulated by law. Such regulation has already been earnestly demanded by students of the subject. It remained, however, for the English clergyman to prove that the power of molding the impulses and conduct of hypnotized persons might, in the hands of pure-minded and upright men, be made a blessing instead of a bane to society. What seems to be the irresistible force of suggestion under hypnotic conditions, might be systematically applied to the work of moral regeneration. If the virtue of sobriety can be, as we have seen, implanted in a confirmed inebriate, it should, by the same means, be possible to instil other virtues. The will of the hypnotized patient, once subjugated, could be enlisted on the side of honesty, purity, and truth-telling. It might be made a perpetual incentive to well directed labor and an honorable life.

"The medical journal to which we have referred, in commenting on the authenticated cure of drunkenness by hypnotic suggestion, advocates the application of the same curative agency on a large scale to inebriate asylums. The next step would be the subjection of the inmates of prisons to hypnotic treatment, with a view of effecting a radical reformation of character. It is only, however, with extreme tardiness and caution that legislation takes account of scientific discoveries. Not until hypnotic phenomena have been more widely studied and indisputably verified can we expect to see their moral and social significance attract the eager and anxious attention of the community at large."

The importance of the subject cannot well be overestimated. Our judicial tribunals are wholly unprepared for the investigation of crimes thus committed.

A prominent judge upon the criminal bench of this city has, as it has been said, expressed doubts as to the existence of such a state as the hypnotized condition, which would affect responsibility for acts committed in that condition.

The public mind cannot be said to recognize it, and the learned and honest judge reflects popular opinion and popular ignorance of the subject.

It is doubtful if the legal profession, as such, are *en rapport* with the scientific truths of this branch of science, as recognized in France judicially in the tribunals.

It is probably true that three-fourths, if not more, of the medical profession in this country are ignorant of what has been demonstrated at Salpêtrière, and what is recognized as scientific truth at this moment in all foreign schools or universities of learning as to these phenomena. It is no longer an open and disputed question in France, Austria, Italy, Russia, Germany. It is an accepted, scientific fact. What is now studied are its phenomena, its problems, its sequelæ. It is a recognized fact, but what are

its phenomena and limitations is the remaining question.

The questions raised by the editor of the New York Ledger are immensely significant, and of the greatest importance to the race:—

How far can hypnotism, properly administered, be used as an incentive to higher education?

How can it be used as a moral remedy to correct evil habits, bad practices, or evil inclinations?

How far can it be used as a means for molding character and lifting the aspirations to nobler ideas and higher planes of action and of life?

These are the questions of the hour, and these the subjects which should arrest the attention of the learned committee of the Medico-Legal Society.

The Humboldt Publishing Company, of this city, have taken up the subject, and have published the work of Prof. Fred. Björnstörm, of Stockholm Hospital, translated by Baron Nils. Posse, M.G., of Boston.

Chapter XI, of this work, treats of "Hypnotism and the Law."

We quote:—

"Hypnotism comes in contact with the law at more than one point, and many and intricate are the medico-legal questions which it has already raised. The most important of these questions are:—

"1. Can the hypnotized be physically or mentally injured by hypnotism?

"2. Can the hypnotized fall victims to crime?

"3. Can the hypnotized be used in the service of crime as a ready tool without a will?

"4. Are the hypnotized responsible?

"5. Should hypnotism be prohibited?

"We regret that want of space prevents our giving the whole of the chapter which contains an answer to these questions."

The American Journal of Psychology has devoted more space and attention to this subject than any other scientific journal on this side of the sea. Its editor is Prof. G. Stanley Hall, President of Clark University, and this journal, while not reproducing an original articie from an American author upon this topic, so far as we can recall, has devoted considerable space in its psychological literature to "Hypnotism," as a subject or subdivision, and in this department has noticed and reviewed very much of the recent foreign literature of this department of science, and has also noticed quite generally what has appeared in our American and in the foreign press on this topic.

Prof. Stanley Hall is perhaps one of the best-educated and equipped men this side the Atlantic to lead in these investigations, outside of organized bodies or societies.

His journal must take notice of and record all discoveries, especially as to judicial or medico-legal questions arising affecting responsibility of, or related to, criminal anthropology.

Dr. Ed. J. Cowles, of McLean Asylum, and Dr. William A. Noyes, of the Experimental Station there, are qualified eminently for this work, while Fred. Peterson, M.D., Frank H. Ingram, M.D., W. Allen Starr, M.D., of New York, and others of the junior rising medical men, will doubtless do valuable work in this domain in the near future.

We learn that Dr. Jastrow proposes to prosecute psychological research in the University of Wisconsin; that Dr. Cattell intends similar studies in the University of Pennsylvania; Dr. Wolfe, in the University of Nebraska; Dr. James, at Toronto; and that Professor Ladd, of Yale, and Professor James, of Harvard, will continue their important investigations in psychological and psychical research.

The importance of these investigations upon medical jurisprudence upon the tribunals and courts of justice is recognized abroad. Is it recognized here?

We look for important advances all along the line in the coming years of 1890 and 1891.

Much of what seems now a mystery of motive of action, so pertinent to legal and criminal responsibility, must, in some cases, be involved in this inquiry.

The recent startling and, in many respects, almost incomprehensible case in which the Hon. Ray Hamilton was so strangely affected may be shown to be due to the well-defined phenomena of hypnotism.

It is difficult to understand certain phases and complications in that, as in other curious and remarkable cases to which our attention has been recently drawn, except by a study of the psychical phenomena of hypnotism.

A common and almost universal error is the popular impression that only weak, sickly, nervous persons, and especially hysterical women, were susceptible to hypnotism. This is a popular fallacy and error. Björnström says upon this subject:—

"Later experiences, and particularly the elaborate statistics of Liebault, of Nancy, have shown that almost anybody can be hypnotized. A difference, however, must be made between those whom it is easy and those whom it is difficult to hypnotize.

"Among the former belongs, without doubt, the hysteric, but otherwise physical weakness gives no special predisposition. The willingness of the subject, his passivity and power to concentrate the thought or attention on the intended sleep, have more importance. Thus, it has been found that even the strongest men from the lower classes (mechanics, laborers, soldiers) are more easily put to sleep than intelligent persons, who voluntarily or involuntarily let their thoughts wander to various objects which distract their attention. It will often be found that those who cannot be hypnotized in the first, second, or third *séance*, yet succumb to renewed, patient efforts."

It was the opinion of Dr. Edward Payson Thwing, as stated to the writer, who had conducted many experiments, that it was doubtful if there was any person who could not be hypnotized who had sufficient will-power to concentrate the thoughts upon a subject, to remain mentally passive, and who would not mentally oppose or combat the influence of the hypnotizer, or who would mentally yield to it; that after long and repeated trials, under favorable conditions, with patient effort, every one would ultimately succumb.

It is a subject which should not longer be neglected or ignored, and to which the earnest attention of advanced students of medical research is earnestly suggested to meet the popular demand for light upon the science, and researches regarding its phenomena is now the duty of such of our medical men as are competent to grapple with the subject.

ABSTRACTS.

SOMNAL. — The November issue of the Therapeutische Monatshefte contains an article by the pharmacologist, Dr. Langaard, entitled "Concerning Some New Hypnotics." This paper we reproduce in extenso:—

Since the above remarks (on chloral-urethan) have been in press the following notice has appeared in No. 80 of the Pharmaceutice Zeitung, and has, unfortunately, found its way into the columns of certain lay journals. (The author quotes the well-known article which eulogizes somnal as a preparation which "combines the admirable properties of chloral hydrate and urethan while free from the unpleasant effects of either substance."

According to a later assertion of H. Radlauer in No. 87 of the same journal, somnal results from the reaction between chloral alcoholate and urethan *in vacuo*, and is formed by a simple process of addition. H. Radlauer gives the formula of his somnal as

$$OC^2H^5$$
$$CCl^3\text{-}C\text{-}H$$
$$NHCOOC^2H^5$$

If this be correct the substance should be a chloralurethan, in which the hydrogen of the OH group is replaced by ether C^2H^5. Thus,

$$OH$$
$$CCl^3\text{-}C\text{-}H$$
$$NHCOOC^2H^5$$

The preparation, as found in commerce, is a clear, transparent fluid, smelling strongly of alcohol, of an intensely bitter and harsh taste, freely mixable with an equal quantity of water. It becomes turbid upon the addition of more water, but forms a clear solution with five times its bulk of water.

Every unprejudiced reader who learns from the above-mentioned notice in the Pharmaceutische Zeitung that somnal melts at 42° C. (107.6° F.) must be surprised to find that the preparation is a fluid. This obvious contradiction has, indeed, led H. Lutze, in No. 86 of the Pharmaceutical Journal, to state that somnal is no more than a solution of chloral hydrate and urethan in alcohol.

Whether somnal actually is due to the assigned combination, whether it is but an alcoholic solution of chloral hydrate and urethan, or, finally, what appears very probable to me, whether it is the product of the reaction between chloral alcoholate and urethan dissolved in alcohol, can only be asserted after an exact chemical investigation. At any rate, Herr Radlauer does not seem to be clear as to the nature of his new preparation if he defines it as a simple addition-product from chloral alcoholate and urethan. If this be so the fact is not expressed by the formula which he has given us; and if the result of the ascribed combination, then it is no simple

addition-product. A compound having the formula

$$OC^2H^5$$
$$CCl^3\text{-}H$$
$$NHCOOC^2H^5$$

can only be derived from chloral alcoholate and urethan when water is at the same time formed. (Compare also the opinion of Hr. Dr. Goldmann in No. 92 of the Pharm. Ztg.—Ed.)

The determination of the composition of somnal appears from the above to be a matter of but little consequence, since the preparation which its discoverer lauds as possessing virtues so superior to other hypnotics, and especially to chloral hydrate, fails in practice to bear out these recommendations. The taste appears to me more unpleasant, or, at all events, not more palatable than that of chloral. Its narcotic effect is less than that of chloral, requires larger doses, appears later, and is of shorter duration. Respiration and circulation are affected in the same manner, and, at least, as energetically as by chloral hydrate. The blood-pressure sinks, in rabbits, to 40 millimetres (15¾ inches) of mercury, or even lower after doses that only produce two hours' light sleep.

My friend, Herr Prof. Rabow, who has made use of somnal experimentally, writes me that "the taste is very bad, even when given, as advised, in succus liquiritiæ. I have thus far administered somnal in 2-gramme doses (31 grains) twenty times to 18 persons, and have seen a good result seven times. Nine times the action was weak, *i.e.*, the patient slept but two or three hours, and three times no result was produced. One patient, who could not sleep at all after 2 grammes (31 grains) of somnal, slept soundly after the same quantity of chloral hydrate. Another, who only slept two hours after 2 grammes of somnal passed a very good night after 0.015 gramme morphine ($\frac{1}{4}$ grain)."

[We have but a few words to add to this article. The essay of the Therapeutischen Monatshefte coincides fully with the views expressed by our reporter, G., in No. 44, in the article "Upon Somnal." Not only is the judgment that the use of somnal in heart disease requires great prudence confirmed, but also the other points specified in our columns as not immaterial in estimating the value of a remedy, task, etc., are taken into consideration.

The statement of Herr Ritsert, in reference to the article in No. 44 of Süddeutsche Apotheker-Zeitung, that "the essence of the matter had not been touched," may, when that article is compared with the essay in the Therap. M. H., be taken cum grano salis.—Ed.]
—*Süddeutsche Apotheker-Zeitung*, November 21, 1889.

Chloralamid.—Is the use of chloralformadid followed by reduced blood-pressure and diminished depth of respiration?

This is the question at present under debate in medical literature. It is one of great importance, since its settlement will decide whether the hypnotic introduced by Mering is to be given a place in the Materia Medica, or whether it is a substance which shares the properties of chloral hydrate, and cannot, therefore, be regarded as an actual addition to our resources, but is one which may be dispensed with.

The well-known pharmacologist, Dr. Langaard, enters into a close discussion of the question in an article "Concerning Some New Hypnotics," published in the October issue of the Therapeutische Monatshefte. Since experience has taught that all hypnotics containing chlorine and bromine possess undesirable properties investigators turn to substances belonging to the hydrocarbon group, in which the halogen bodies are not present. Thus have been introduced paraldehyde, methylal, amylenhydrate, and urethan,—in short, bodies which came into use on account of their weaker power, and especially on account of a sudden, but transitory custom. Some have turned their thoughts anew to chloral, and, supported by theoretical considerations, have attempted to counteract its depressant influence upon the circulation and respiration by substituting one of the amido group for a molecule of chloral. For the members of that group stimulate the centres of the medulla oblongata. Thus the hope was aroused that we should be able to compensate the depressant effect of chloral upon the respiration by the excitant action of the amido compound. So chloralamid made its appearance in order to fulfill the demand for a harmless hypnotic.

The judgment of experimenters was for a long time favorable. All confirmed its narcotic properties. Rarely were any drawbacks observed, nor did it seem to exert any deleterious influence upon respiration and circulation. It

is useful in the various forms of sleeplessness, especially in simple nervous insomnia. It is usually unable to subdue intense pain. Comparatively unfavorable observations were made by Alt, who saw 12 failures out of 41 cases. He is the only author, also, to speak of subjective symptoms and to advise its administration at long intervals.

The general observation agrees that respiration and circulation are unaffected. Hagen and Hülfen, indeed, once witnessed collapse, but could not with certainty attribute it to the drug. As regards respiration, Langaard opposes the general opinion on the strength of numerous experiments upon animals. The influence of a drug upon respiration is shown by an alteration of frequency of breathing. Experiments upon rabbits have demonstrated that after a dose of chloralamid the expired air is markedly decreased.

As to its influence upon blood-pressure in animals we have but a communication of Kny. Although this writer infers from the result of his experiments that chloralamid influences the circulation very slightly in comparison with chloral hydrate, yet Langaard concludes from his statements that the effect of chloralamid upon the circulation is not only marked, but that it is very energetic. While the decrease of pressure due to chloral hydrate is more sudden, that produced by chloralamid is developed more gradually and is later in making its appearance. Langaard places a suitable value upon the remedy, but, in opposition to the general opinion that it is without danger in cases of heart disease, he declares, upon the ground of his experiments, that its use in cases of heart disease demands caution if we wish to be spared disagreeable accidents.

The work is not yet concluded, and we are all the more interested in watching its discussion, since it is of such importance in respect to the introduction of chloralamid. It is well known that Langaard is very cautious in the expression of his opinion.

He addresses himself in the next place to an estimate of the value of somnal.—*Süddeutsche Apotheker-Zeitung*, November 7, 1889.

Cases from Unna's Polyclinic.—Dr. E. von Düring reports the following:—

1. *Tuberculosis from Ear-Rings.*—A 14-year-old girl, belonging to a healthy family, removed and wore the rings from the ears of a friend who had died of phthisis. There soon appeared upon the lobe of the left ear a tumor, the tubercular nature of which was attested by the presence of bacilli. Suppuration of cervical glands followed, and, finally, pulmonary consumption.

2. *A Case of "Lupus Miliaris," or so-called "Acne Lupus."*—Discrete, slightly elevated tubercles, of a deep-red color and pin-head size, appeared upon both temples of a young woman, descending upon the cheek to the chin and leaving the middle of the face free. They gave at first the impression of acne, but showed no tendency to suppuration. Treatment appropriate to acne had no effect. On the contrary, the tubercles enlarged, became purplish in color, and exhibited a characteristic, honey-like transparency, so that the diagnosis of lupus was made. The tubercles were destroyed by the application of creasote-salicyl plaster mull, healed rapidly, but left rather deep scars behind.

The author is of the opinion that lupus may begin in this manner more frequently than is thought. In the small number of cases of this kind hitherto described the treatment was energetic and the development of the disease was obscured.—*Deutsch. Med. Zeitung*, November 7, 1889.

Tuberculosis of the Mouth.—Hr. P. Schäferowitsch has published a detailed account of this rare affection; based upon twelve personal observations in the surgical and medical clinics of Heidelberg, and a close study of hitherto published cases of which the history is related with precision. The total number amounts to 88, of which 71 occurred in men, 14 in women, while of 3 the sex is unrecorded. No time of life is exempt. It has been observed in patients from 6 to 70 years of age, though it has been most commonly observed subsequent to the thirtieth year. It may occur either primarily or secondarily, the former being the rarer. Two forms may be distinguished. The tubercular form is less frequent. The primary lesion, nevertheless, is generally of this form. It develops as a moderately indurated tumor which, when it attains the size of a pea, breaks down into an ulcer with a hard base. As long as its surface is unbroken it may be mistaken for carcinoma or syphilis, but when ulceration has taken place the discovery of bacilli tuberculosis assures the diagnosis. The

ulcerated form is more characteristic, and appears from the first as a raw surface. The ulcer is generally longer than broad; its edges, raised, fissured, and moderately hard, show the color of fresh granulations; its bottom is usually covered with a dirty-gray false membrane, and readily bleeds when this is removed. The surface is then ragged, beset with uneven papillæ, between which it is covered with pus. The ulcer is generally surrounded by miliary tubercles, by the degeneration of which it enlarges. The disease does not ordinarily penetrate beneath the mucous membrane. As a rule, a tubercular ulcer of the tongue is situated near the apex. Thence it may extend upon the dorsal or, more often, the under surface. Pain is usually present, but is not so severe as that of cancer. The connected lymphatic glands are seldom enlarged.

The prognosis depends upon the form, duration, and size of the ulcer, and especially upon the constitution of the patient. The primary and still local sore heals after excision. The secondary may heal, but recurs. The larger the sore, particularly if secondary, the less is the prospect of recovery. Medical treatment is of much less avail than surgical. The latter consists of extirpation by the knife or thermocautery, or, if that be not practicable, by energetic scraping. The hygienic and dietetic precautions suitable to tuberculosis, wherever manifested, should be carefully observed.—*Deutsch. Med. Zeitung*, November 14, 1889.

Erythroxylon Coca; Its Value as a Medicament.—During the last few years the therapeutic use of coca has been so greatly extended that it may be interesting and useful as a *résumé* to enumerate its many applications.

Although coca has, from its earliest introduction as a pharmaceutical product into France, enjoyed the highest professional recognition, this South American plant can hardly be said to have entered into current therapeutics. It is only since the discovery of the scientific application of the alkaloid of erythroxylon coca, and since the important essays on the drug and the experiments made with it, that physicians generally have studied and recognized its therapeutic value.

It is well remembered, how, in former years, the virtues of the salts of quinine were held to entirely supersede those of cinchona; in like manner this inevitable error has arisen with coca, its alkaloid, cocaine, only having been considered by many.

In consequence of the tests made with cocaine, which, from a physiological point, have established the dose and the limit of its toxic effect, and from a medical view, have brought to light cases of abuse which have resulted in more or less serious accidents, many have been led to regard the plant coca itself as a dangerous drug.

The proof of the therapeutic value of the coca-leaf is clearly shown by the many excellent results obtained in practice with such reliable preparations of the drug as have been furnished the profession by that worthy pharmacist, Mariani.

As to the comparison which many of our *confrères* make between the preparations of cocaine and of coca, we do not fear to state that, however sound may be the theory of preferring to administer certain alkaloids to administering a preparation of a plant of which the virtues vary according to where and how it was gathered, the place of its cultivation, its quality, and the constitution and nature of the preparation—we repeat, we do not fear to state that in the majority of cases, as the alkaloid does not contain all the active principles of the plant, it cannot be preferred, except in special cases where the particular action of the alkaloid alone is desired.

The fact is well established that the salts of quinine cannot replace the extract, the wine, or the powder of cinchona, the tonic principles and the essential oils of which have, without doubt, shown a special therapeutic value; and I need merely cite the indisputable success obtained by Professor Trousseau with the powder of cinchona in checking malarial fevers which had resisted even the largest doses of sulphate of quinine. More especially cocaine cannot replace all the active principles and the essential oils of the leaf of erythroxylon coca, as has been proved from the time of the earliest discovery and use of the plant.

In 1887 at the Institute of France (Académie des Sciences), and in 1888 at the Académie de Médecine, I demonstrated that coca, by virtue of its active principles, had three very distinct separate actions (published in the Proceedings):—

1. As an anæsthetic, acting upon the protoplasm of the terminations of the sensory nerves, preventing the transmission of painful sensa-

tions to the centres of the unconscious sensibility of Bichat.

2. As a nerve tonic, producing functional excitement of the cerebral and spinal nerve-centres and increasing the intellectual and muscular activity.

3. As a tonic to the unstriped muscular fibres of the stomach, the intestines, and the bladder, producing functional excitement of the constrictor action of the great sympathetic nerve, with consequent functional exaltation of all the smooth muscular fibres or muscles of organic life.

The dissatisfaction produced and the complaints which are made that the plant is wanting in uniformity of quality and is unreliable in producing the desired effects, are due to the varying quality of the preparation.

An essential requisite to produce reliable, uniform preparations of coca is a thorough knowledge of the origin of the leaf, its nature, and its quality.

Careful study and researches made by Mr. Mariani for many years as to the origin, the nature, the species, the culture of the different leaves of coca, and the care which he gives to his preparations, have been the means of placing at our disposal products uniform in quality and unvarying in their effects in those varied cases where their internal administration is called for.—MARC LAFFONT, M.D., Paris, in the *New York Medical Journal.*

THERAPEUTIC NOTES.

Continuation of prescriptions used by Dr. John V. Shoemaker at the clinic for skin diseases at the Medico-Chirurgical Hospital of Philadelphia.

EPITHELIOMA—EPITHELIAL CANCER—SARCOMA —CARCINOMA.

Take of Ext. of cannabis indica, 5 grains.
Extract of nux vomica, 5 grains.
Arsenite of sulphur, . 2 grains.
Sulphate of morphine, . 2 grains.
Mix and divide into 20 pills.
Dose: 1 pill three to four times a day.

EPITHELIOMA—EPITHELIAL CANCER—SARCOMA —CARCINOMA.

Take of Hydrochlor. of cocaine, 5 grains.
Sulphate of atropine, . ¼ grain.
Extract of gentian, . 40 grains.
Mix and divide into 40 pills.
Dose: 1 pill three to four times a day.

EPITHELIOMA—EPITHELIAL CANCER—SARCOMA —CARCINOMA.

Take of Hydrochlor. of cocaine, 4 grains.
Ethoxy-caffeine, . . 1 drachm.
Simple sirup, . . 4 ounces.
Mix. Dose: 1 teaspoonful in water every two or three hours until relieved of pain.

EPITHELIOMA—EPITHELIAL CANCER—SARCOMA —CARCINOMA.

Take of Bromhydrate of cocaine, 4 grains.
Sulphate of morphine, . 1 grain.
Orange-flower water, . 1 ounce.
Mix. Dose: 10 to 15 drops, to relieve pain, every three to four hours.

ERYSIPELAS.

Take of Salol, ... 1 drachm.
Sulphate of quinine, . 24 grains.
Mix and divide into 12 capsules.
Dose: 1 capsule every two or three hours.

ERYSIPELAS.

Take of Tincture of belladonna, 1 drachm.
Tincture of aconite-root, 1 drachm.
Mix. Dose: From 4 to 5 drops in water every two or three hours.

ERYSIPELAS.

Take of Tinct. of chloride of iron, 3 ounces.
Sulphate of quinine, . 2½ drachms.
Dose: From ½ to 1 teaspoonful in a wine-glassful of water every three hours.

ERYSIPELAS.

Take of Sulphate of quinine, . 1 drachm.
Extract of belladonna, 3 grains.
Oil of theobroma, sufficient quantity.
Mix and divide into 12 suppositories.
Dose: Insert one in the bowel every two or three hours.

ERYSIPELAS.

Take of Extract of belladonna, 2 grains.
Extract of stramonium, 2 grains.
Sulphate of quinine, . 40 grains.
Mix and divide into 20 pills.
Dose: 1 pill every two or three hours.

ERYSIPELAS.

Take of Antipyrine, . . . 1 drachm.
Sulphate of quinine, . 40 grains.
Mix and divide into 12 powders.
Dose: 1 powder three to four times a day.

ERYTHEMA.

Take of Phosphate of soda, . 2 drachms.
Fluid extract of malt, . 3 ounces.
Mix. Dose: 1 to 2 teaspoonfuls in milk three to four times a day.

ERYTHEMA.

Take of Tincture of gelsemium, 1 drachm.
Tincture of belladonna, ½ drachm.
Mix. Dose: (Adult) 4 drops in water every three hours.

ERYTHEMA.

Take of Subnitrate of bismuth, . 1 drachm.
Creasote, ... 5 drops.
Sirup of acacia, . . 2 ounces.
Peppermint-water, . . 2 ounces.

Mix. Dose: 1 to 2 teaspoonfuls three to four times a day.

ERYTHEMA.

Take of Infusion of digitalis, . 2 ounces.
Spirit of nitrous ether, . 2 ounces.

Mix. Dose: From 1 to 2 teaspoonfuls in water every three hours.

FURUNCULUS—BOIL.

Take of Oxide of silver, . . 4 grains.
Extract of belladonna, . 2 grains.
Sulphate of quinine, . 40 grains.

Mix and divide into 20 pills.
Dose: 1 pill three times a day.

TREATMENT OF OZÆNA.

The general treatment of ozæna, which is so rebellious to treatment, consists especially in modifying the general condition, and for this purpose we can use the preparations of iodine, arsenic, etc., but a sojourn at the sea-shore generally gives the best results.

It is more especially the local treatment which engages our attention. This will consist principally in the use of irrigations; these should always be at a temperature of from 20° to 30° C. They should be abundant.

We commence by using one pint of water containing an alkaline salt (chloride of sodium, bicarbonate of soda, chlorate of potash, 20 grammes to a pint of warmish water). Immediately after this cleansing solution we use an antiseptic irrigation, taking care to vary from time to time the antiseptic employed. The following may be used in the beginning:—

℞ Phenic acid, . . 20 grammes.
Glycerin (pure), . 100 "
Alcohol at 90°, . . 50 "
Water, . . . 350 "

M. Sig.: A teaspoonful to half a pint of tepid water.

After the phenic acid has caused the disappearance of the odorous symptoms, which generally takes from one to two weeks, we replace it either by chloral, resorcin, salicylic acid, salicylate of soda, or by creolin. As the last-named drug has the inconvenience of being very caustic, for the reason that it forms an emulsion and not a solution, we should not administer it, excepting in small doses:—

℞ Creolin, . . . 1 gramme.
Alcohol (pure), . 120 grammes.

M. Sig.: One teaspoonful to a pint of tepid water.

Naphthol gives equally good results, but preferably in a camphorated solution.

Alumina aceto-tartaricum is also used:—

℞ Alum. acet. tart., . 20 to 40 grammes.
Acid. boric, . . 80 to 100 "

M. Sig.: One teaspoonful to one-half, or to one pint of water.

The liquor Van Swieten should not be used, as it is dangerous.

In obstinate cases the treatment should be terminated with pulverizations:—

℞ Acid. phenic, . . 2 grammes.
Crys. resorcin, . . 3 "
Pure glycerin, . . 50 "
Water, . . . 300 "

After some time we replace this antiseptic liquid by more stringent solutions: tannin, boric acid, alum, or an antiseptic vinegar, and when the mucous membrane is too dry, we use the following solution:—

℞ Salol, . . . 5 grammes.
Vaseline, . . . 150 "

Fumigations and humage give equally good results. The following solutions, heated, should be employed (en humage) for one or two minutes after the irrigation:—

℞ Camphor, . . . 8 grammes.
Tincture of iodine, . 10 "
Iodide of potassium, . 2 "
Tar, ... 12 "
Alcohol at 90°, . . . 100 "
Water, . . . 250 "

—*La Tribune Médicale; Times and Register.*

SUBSTITUTE FOR IODOFORM.

Dr. Benjamin has found the following to answer the same purpose as iodoform when used as a surgical dressing:—

℞ Zinci oxidi, . . . ℥ij.
Hydrarg. chlor. corros., . . gr. j.

M.

Subject the oxide of zinc to a temperature of about 200° F. for a few hours before mixing, then mix when cool and place in an air-tight box until ready to use it. This is thoroughly antiseptic and does not possess the disagreeable odor of iodoform.—Dr. Moure, in *La Tribune Médicale; Times and Register.*

For chronic catarrhal rhinitis:—

℞ Pulverized alum, . 2 grammes.
Borax, . . . 2 "
Menthol, . . . 20 centigrammes.
Tannate of zinc, . 3 grammes.
Tannate of bismuth, . 3 "
Locopodium, . . 8 "

—*Journ. de Méd. de Paris; Journal of the American Medical Association.*

TREATMENT OF PROFUSE MENSTRUATION.

℞ Dialyzed ergotine, . 40 grammes.
Distilled water, . . 70 "
Glycerin, . . . 20 "
Salicylic acid, . . 20 centigrammes.

M. Sig.: One teaspoonful diluted with 3 teaspoonfuls of water to be injected into the rectum once a day after stool.—REINSTADTER, in *Gaz. Méd. de Liège; Journal of the American Medical Association*

PAPULAR ERYTHEMA.

℞ Talc.,
Oxide of zinc,
Powdered starch, . āā 100 grammes.
Boric acid, . . . 3 to 6 "

M. Sig.: Bathe the surface with a solution of boric acid, and then sprinkle on the powder.

To prevent the affection so common in the newborn, apply a pomade composed of equal parts of vaseline and oxide of zinc.—BESNIER, *Gaz. Méd. de Liège; Journal of the American Medical Association.*

TREATMENT OF INFLUENZA.

Dr. Frankhauser, of Reading, recommends the following prescriptions:—

℞ Atropinæ, ... gr. $\frac{1}{96}$.
Ext. ipecacuanha, . . fgtt. ij.

M. Sig.: Every three hours.

Others prescribe:—

℞ Tinct. aconiti, . . . gtt. j.
Tinct. sanguinariæ, . . gtt. xv.

M. Sig.: Four times daily.

Sill others either give quinine or antipyrin; dose, 5 grains four times daily.

Another formula is—

℞ Tinct. aconiti, . . . gtt. j.
Tinct. sanguinariæ, . . gtt. x.
Tinct. cardamomi comp., . gtt. xv.

M. Sig.: Four times daily.

And finally:—

℞ Ext. jaborandi, . . . fgtt. ij.
Tinct. belladonnæ, . . gtt. iij.

M. Sig.: Every hour.

RACHITIC PSEUDO-PARALYSIS.

℞ Phosphori, ... gr. j.
Alcohol absolut., . . ♏cccl.
Spt. menth. pip., . . ♏x.
Glycerinæ, ... ʒij.

M. Sig.: Six minims t. i. d., to be increased 1 drop weekly until 10 drops are given.—A. B. JUDSON, M.D.

TREATMENT OF MEASLES.

For immediate use:—

℞ Salol, ... ʒss.
Bismuth subnit., . . ʒss.

And div. in chart. no. vi, or fill 6 capsules. One every three or five hours.

Or salol alone, according to the following:—

℞ Salol, ... ʒj.

Sig.: Fill 10 capsules and take 1 every three or five hours.

℞ Bismuth subnit., . . ʒij.
Tr. opii, ... gtt. lxxx.
Neutralizing cordial, . . ʒxxiv.

M. Sig.: Teaspoonful frequently, repeated if required.

In any event it may be best to commence treatment with laxatives. A neutralizing cordial will answer, or the following repeated:—

℞ Ext. cascara sagrad., . ʒij.
Elix. cascaræ, . . . fʒxxxij.

Sig.: Teaspoonful.

Or one of the following powders:—

℞ Hydrarg. sub. mur., . . gr, j.
Pulv. pepsin, . . . ℈j.

M. and div. in chart. no. iv.

Sig.: One, to be repeated or not as may be indicated.

℞ Ammon. carb., . . . gr. ʒss.
Syr. simplicis vel. tolu., . ʒxvj.

M. Sig.: Half-teaspoonful for a child; from 1 to 2 teaspoonfuls for an adult.

When pulse is full and strong:—

℞ Ammon. carb., . . . ʒij.
Syr. scil. comp.,
Spt. æth. comp.,
Syr. tolu, . . . āā ʒviij.

M. Sig.: From ½ to 2 teaspoonfuls, repeated as often as may be required.

In the absence of dyspnœa give a child from 10 to 20 drops of the subjoined as an expectorant:—

℞ Ext. pinus canadensis co.,
Hoffmann's anodyne,
Comp. spts. lavend., . āā ʒxvj.

M.

When cough is very difficult benefit may follow the use of this:—

℞ Antimon. potas. tart., . gr. j.
Potas. chlorat., ... gr. x.
Aq. menth. pip., . . ʒxxxij.
M. Sig.: Teaspoonful.

When the chronic form is assumed, with or without asthmatic respiration, the grindelia robusta, as in the annexed formula, may be employed with decided advantage:—

℞ Ext. grindelia robusta, . fʒiv.
Glycerin,
Syr. tolu, . . . āā ʒviij.

M. Sig.: From ¼ to ½ teaspoonful to a child; from 1 to 2 teaspoonfuls to an adult. —Dr. H. B. McCall, Georgetown, Ohio, in *Medical Standard*.

CORYZA.

The following solution for nasal catarrh is recommended by Professor Leffert, who claims it to be the most efficacious:—

℞ Acidi carbolici, . . . Ɔj.
Sodii boratis, . . . ʒj.
Sodii bicarbonatis, . . ʒj.
Glycerin, ... fʒj.
Aquæ rosæ, . . . fʒj.
Aquæ, . . . q.s. ad Oj.

M. Sig.: Use as a spray.—*Medical and Surgical Reporter*, December 21, 1889.

THE TREATMENT OF CONSTIPATION IN PATIENTS SUFFERING FROM UTERINE TROUBLES.

Like dyspepsia, the treatment of constipation in these patients presents special indications, which are important to know.

It would seem that after we have given a purgative, and generally the least disagreeable one, that it would only be necessary to continue the same to establish the proper treatment.

Nothing is less reasonable.

In women subject to uterine hæmorrhage, or even only abundant menses, the usage of drastic purgatives should be forbidden, as well as of rhubarb.

This last substance should never be used where there is abundant menstruation, nor when hæmorrhoids are present.

On the other hand, it is rhubarb which we must choose in lymphatic patients who are gaining in weight and who notice a diminution in their menses:—

℞ Powdered rhubarb, . 10 grammes.
Acetate of potash, . 2 "
Divide in 20 powders.

Sig.: Take 1 pill before each meal, every day, or every other day.

In arthritic persons the following prescription is useful:—

℞ Sulphur, washed and sublimed, . . 10 grammes.
Calcined magnesia, . 4 "
Powdered rhubarb, . 4 "
Cream of tartar, . 8 "
In 8 powders.

Sig.: Take from 1 to 3 powders at night, three hours after the meal.

In herpetic persons, as in arthritics, sulphur united with iodide of potassium renders great service:—

℞ Iodide of potassium, . 10 grammes.
Sulphur, washed and sublimed, . . 6 "
Sig.: One to be taken after each meal.

Mineral waters such as Hunyadi Janos, Pullna, Birmenstorff, Laroche-Guyon, Atunn are also indicated in similar cases.

When a congestive state of the utero-ovarian system is present, we may add frictions of soothing or irritating applications on the lumbar region morning and night. —*L'Union Médicale du Canada; Times and Register.*

GASTRIC NEURASTHENIA.

Dr. Dujardin-Beaumetz has an excellent article on this subject, and we pass over rapidly his clever arguments to give you at once his prescriptions in such cases, which *résumé* the whole subject. It is intended for a case of medium dilatation of the stomach. First, let him take at each meal one of the following wafers (cachets):—

℞ Bismuth, salicylate,
English magnesia,
Sodii bicarb., . āā 10 grammes.
M. and div. in chartas no. xxx.

Then let him take every night on retiring a dessertspoonful of the following powder in a half-glass of water:—

℞ Follicules of senna (which have first been washed in alcohol, and powdered),
Sublimed sulphur, āā 6 grammes.
Powdered fennel seed,
Powered badian or anise, . . āā 3 "
Pulv. cream of tartar, 2 "
Pulv. licorice, . . 8 "
Powdered sugar, . 25 "
M. —*Times and Register.*

ANTIFEBRIN AS A HYPNOTIC FOR CHILDREN.

Dr. John Gordon, Physician, Aberdeen General Dispensary, writes as follows: Among the many hypnotics which at present are being so liberally supplied by the chemists to the medical profession, it is well not to lose sight of the value of antifebrin in certain groups of cases. Although the drug suggests more that its action is to hinder the development of febrile condition, or, when that condition exists, to lower the temperature, still, in many cases in my practice, it has proved a valuable hypnotic and analgesic.

Its value has been most evident in cases of broncho-pneumonia, croupous pneumonia, and bronchitis, and that more especially in cases where children have been the sufferers. The marked relief which has frequently followed its administration has, in many cases, been very gratifying. Cases of fretful insomnia of the young, possibly partially caused by pain, fever, or general *malaise*, have been speedily relieved by the drug, and from 6 to 8 hours of refreshing sleep have been induced. After sleep the awakening was natural, there being no excitement nor confusion of thought. There was no period of excitement observed before the drug took effect. Along with the onset of sleep there was a fall of temperature, frequently a copious perspiration; at the same time the respiratory acts were slowed and the pulse-rate diminished. In no case have any evil effects been noticed, although the success of the drug induced its employment in a large number of cases.

The need of a safe hypnotic for children, such as antifebrin seems to be, will, I think, be readily appreciated, the number of cases where it is required being, unfortunately, very large. It is still further enhanced as a serviceable drug for children by the fact that it is comparatively tasteless, and also by the smallness of its dose, the dose being from 2 to 5 grains, depending, of course, on the age of the child. A useful way of prescribing it, I have found, is to place the powder on the dorsum of the tongue, either alone or mixed with a little powdered sugar. It might also be given in the form of a mixture—the drug being insoluble in a watery menstruum—suspended by the aid of mucilage, and sweetened by any of the various flavoring syrups. There is yet another important advantage in hospital and general practice over many recently introduced hypnotics in the comparative cheapness of the drug. —*British Medical Journal.*

VOMITING DURING PREGNANCY.

M. Guéniot considers it advisable to resort to methodical dilatation of the cervix, even when the uterus appears normal. This should be effected with the finger, but in the case of a first delivery an aseptic *tige de laminaire* may be first applied. It is usually sufficient to enlarge the external os and the cervix, but the internal os sometimes requires dilatation. The operation should be effected gradually in four or five minutes. It is preferable to repeat it during several days rather than to employ violence. A quarter of an injection, with chloral, or the application of cocaine to the cervix, has a beneficial anæsthetic action. In the case of reflex transmission M. Guéniot recommends sleep, which may be produced by injections of bromide (1 to 2 grains) combined with chloral. Great attention should be paid to the diet. Solid food should be completely dispensed with. Milk (diluted), light broth, or beef-tea, should be given in small quantities (a teaspoonful every half-hour or hour). Vals or Vichy alkaline water in small quantities should be the only drink given. Employed as a gargle and a drink, these waters frequently modify the symptoms. M. Guéniot considers it a great error to fear the wasting effects of a reduced diet. The principal indication is to cure the vomiting and restore the stomach, and this can only be done by observing a strict diet.—*Ibid.*

RUBIDIUM-AMMONIUM BROMIDE IN EPILEPSY.

In a recent number of the *Gyogyászat* Dr. Rottenbiller gives some particulars as to the effect of rubidium ammonium bromide. He tried it on 5 patients suffering from epilepsy whom he had under observation for a long time. In the first stage nothing was given; in the second the patients, on an average, received 3 grammes of the drug in the day; in the third 6 grammes; in the fourth none; finally, in the fifth stage, 6 grammes of bromide of potassium were exhibited in the day. The following are his conclusions: 1. Rubidium-ammonium bromide is an efficient antiepileptic remedy. 2. In doses of from 2 to 3 grammes it has no great effect. 3. Six grammes a day act more energetically than equal doses of potassium bromide—*Ibid.*

THE
Medical Bulletin.

JOHN V. SHOEMAKER, A.M., M.D., Editor.
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THE RELATION OF BACTERIA TO DISEASE.

THE varied connections and interdependence which pervade the great body of organic nature, from the lowest to the highest forms of living structure, together with the products generated by vegetable or animal organisms; the necessary presence of inorganic combinations to the form, growth, and function of organized bodies; the solidity of nature, if we may be permitted such an expression, must inevitably engage the attention of the thoughtful physician. The homologies of vertebrate animals invite his study; the cellular structure and community of chemical composition of both plants and animals cannot fail to enlarge his conceptions of the majesty of physical nature. Vegetable morphology and vegetable physiology are perceived to stand in relation to the comparative anatomy and physiology of animals. Vessels, the circulation of nutrient fluids, the interchange of gases, the selection, accumulation, and transformation of pabulum, suggest that the same physical laws, no less than the same chemical elements and chemical laws, account for the varied phenomena of both kingdoms of animated nature. Physics, chemistry, and biology are indissolubly linked together; pathology is but physiology modified by altered conditions of nutrition. The principles of classification are essentially the same in all the physical sciences. Abnormal developments of structure are referred to abnormal conditions of embryonic growth. Organs rudimentary in lower forms assume physiological importance and proportional increase or complexity of form in the higher. The human embryo passes through phases of development recalling structural forms which remain fixed in some of the lower tribes.

Such are the relations which connect different branches of biology with each other and with the inorganic world. It is not, therefore, surprising that the list of physicists, chemists, and naturalists should be graced by the names of so many men who have received a more or less complete medical training, and who have chosen to devote their energies principally to the cultivation of pure science. Julius Robert Mayer, Thomas Huxley, Richard Owen, John Hunter, James Cowles Prichard, Robert Brown, Linnæus, Galileo, and Copernicus are among the names which present themselves to the memory. From a strictly scientific point of view the study of the human body in health and disease may not unjustly be regarded as a department of natural history.

A happy recognition of the scientific connections of medicine is expressed in the title of the celebrated Congress of German Naturalists and Physicians. The sixty-second annual gathering of this body of learned men was held in Heidelberg from the 18th to the 23d of September, 1889. The text of the discourse, delivered by Prof. Ludwig Brieger, of Berlin, now lies before us,* and is an able statement of the results of studies which the speaker has done so much to forward. The analogy between fermentation, putrefaction, and infection—nay, between fermentation and the digestive processes, which lie at the foundation of normal nutrition—becomes more and more forcible the more closely the phenomena of infection are investigated. As specific microbes induce those decompositions and rearrangements which result in the formation of alcohol, acetic, lactic, or butyric acid, the various changes which attend the decomposition of urine, so, it has been discovered, does the location and growth of pathogenic germs in animal tissues incite a series of chemical changes in those tissues. For it is not the mere dissemination or accumulation of bacteria within the body, not even the abstraction of oxygen and albumen from the tissues by which they are surrounded, that explains the power of these germs to produce disease. But, when

* Bakterien und Krankheitsgifte. Vortrag, gehalken in der dritten allgemeinen Sitzung der 62 Versammlung deutscher Naturforscher und Aerzte am 23 September, 1889. Von Prof. Ludwig Brieger (Wiener Med. Blatter, Oct. 3, 1889).

conditions are favorable to their growth, they must derive their nutritive material from the tissues. Decomposition and re-combination occur in the soil in which they fix themselves, while the development and multiplication of the microbes is attended by the formation of specific chemical compounds. A process of change and interchange takes place. The bacteria abstract elements from the tissues, make use of them in the process of their own nutrition, while they throw off certain compounds which accumulate in the part or are swept into the circulation. These definite chemical compounds, due to the life and growth of micro-organisms, are the specific causes of disease. Thus, to use the words of Professor Brieger, "the chemistry of bacteria stands in the most intimate relation to the clinical comprehension of the diseases which they originate." Many deleterious substances are produced in the course of digestion, but they enter into harmless combination with sulphuric acid and glycinic acid, which is a derivative of sugar. If this protective arrangement be destroyed, owing to a reduction of vital force, the result appears in the form of intestinal disorders, suppuration, diphtheria, erysipelas, and other maladies.

Of far higher clinical importance than these digestive products, belonging to the aromatic series, are the basic substances due to tissue changes induced by bacteria. These are not only harmful, but absolutely destructive to vital functions. Prof. Brieger has denominated the markedly poisonous bases "toxines." The harmless bases, on the other hand, he calls "ptomaines," in honor of Selmi, who was the first to draw attention to the presence of substances resembling alkaloids in the animal body, though he was never able to isolate them in pure form.

Toxines are encountered during the process of primary digestion, during which albumens are being transformed into soluble peptones. The injection of peptones beneath the skin of animals has produced grave symptoms of intoxication. From fibrin, digested by means of pepsin, is derived a poison called pepto-toxin, which causes paralysis of the hinder extremities in animals and speedy death. In the putrefaction of animal flesh we meet with neuridin, cadaverin, putrescin, mydatoxin, neurin, methylguanidin, and a toxin isomeric with typhotoxin. Neurin is derived from cholin, which is a mildly poisonous component of lecithin. By bacterial agency a molecule of water is abstracted from cholin, and this simple manipulin converts cholin, which is only active in large quantities, into neurin, a deadly poison, which occasions total paralysis and arrest of the heart in diastole. Methylguanidin excites severe convulsions. The genesis of this compound illustrates the oxidizing power of bacteria. It is formed from creatin, an innocent constituent of the flesh of mammalia. From the decomposition of fish result a number of toxines, among them one closely related to the fly fungus. The presence of these substances explains the severe gastric and nervous disturbances which may result from feeding on tainted flesh.

The staphylococcus pyogenes aureus of Rosenbach generates in animal broth, in addition to a ptomain but little studied as yet, a considerable quantity of ammonia. The streptococcus pyogenes of the same observer produces in the same culture material a large quantity of trimethylamin. From cultures of the typhus bacillus there has been obtained a specific toxine, known as typho-toxine. This, injected into guinea-pigs, abolishes control over the voluntary muscles and promotes increased salivary and intestinal secretion. The chemical power of Koch's cholera bacillus gives rise to penta- and tetra- methylendiamin, methylguanidin, etc. Four poisons have been isolated whose action is to cause convulsions. One of these excites, also, a rapid flow of tears and saliva, symptoms which are sometimes met with in traumatic tetanus. A substance to which the name tetanin has been given has been found in the amputated arm of a patient who died of tetanus. Baumann and v. Udránszky have detected in the dejections of a man who suffered from the excretion of cystine ptomaines belonging to the group of diamines. Stadthagen and Brieger have made a similar discovery, which would seem to indicate that cystinuria, hitherto looked upon as the result of obscure tissue changes, should be regarded as an intestinal mycosis.

The list of ptomaines and toxines at present

embraces more than forty substances. Of this number about thirty were discovered by Prof. Brieger.

Gautier has described a class of substances which he terms leucomaines, as being engendered in the normal metabolism of tissue, and these bodies may contribute toward that auto-intoxication which Bouchard describes. Nevertheless, Brieger declares that he has been unable, spite of earnest endeavor, to obtain the leucomaines. He has, however, upon several occasions, detected in human brain-tissue both neuridin and neurin, the latter an energetic poison. Doubtless many disorders are produced by the products of cell life. The substance discovered by Kossel, and called adenin, from its presence in glandular tissue, has been observed in considerable quantity in the blood of leukæmic patients, though not present in normal blood.

In addition to their inherent importance in explaining the genesis of disease, these chemical results of bacterial activity, these ptomaines and toxines, possess immediate practical importance from the point of view of Preventive Medicine. Analogical reasoning suggests that incorporation of these chemical substances of specific toxicity by a process of "vaccination" may become available as prophylaxis. By the same path we may be led to attain that long-desired goal of therapeusis, the specific treatment of disease.

THE HISTORY OF MEDICINE.

AN interesting address upon the value of professional history was delivered by Prof. Th. Puschmann, of Vienna, before the same congress to which we have referred in the preceding editorial.* The distinguished author deplores the fact that physicians and naturalists bestow less attention upon the history of their sciences than men engaged in any other variety of intellectual labor. Jurists, theologians, and artists—soldiers, even—are by no means so forgetful of what had been accomplished by their predecessors.

The charge is, perhaps, just, but it admits of ready explanation. The scope of medical study is so comprehensive, the practice of medicine so arduous, that the physician scarcely possesses either the time or the energy to cultivate the history of his profession. Its responsibilities are so heavy, its demands so exacting, that a conscientious man almost questions his own right to spend time upon any study which does not increase his capability at the bedside. The theories and practice of the physicians of three hundred or even one hundred years ago, to say nothing of those of two thousand years ago, seem so obsolete that their successors of to day deem it a waste of time to think of them, read of them, or write of them. "Let the dead past bury its dead" might well be the motto of the medical man in regard to medical history. Usually, too, the character of mind which determines a man to the study of science is indifferent to historical inquiries. He seeks to know what is true in the present, not what was thought to be true in the past.

Nevertheless, history must always be of interest, always of importance. History and travel enlarge the mind, clear it of prejudice and conceit. Intellectual toil needs to be diversified. Monotonous study is apt to become dry and even unhealthful. It is wise for the special student to devote a portion of time to purposes of general culture. Secondary studies are a source of relaxation to the weary mind. As such, they deserve a place in mental hygiene. Medical history is an important chapter in the history of science, and it is the oldest chapter. The history of science is, as Professor Puschmann justly remarks, a portion of the history of general culture. It is the story of the efforts made by the human mind to pierce the secrets of Nature.

We of the nineteenth century are so profoundly and so justly impressed by the greatness of its achievements that we unconsciously tend to depreciate preceding centuries. We need to remind ourselves that our results are greater because our opportunities have been greater. The intellectual wealth of the ages is a constantly accumulating treasure.

It is curious to observe how the great minds of antiquity sometimes anticipated modern practices and modern theories. Our author

* Ueber die Bedentung der Geschichte fur die Medizin und die Naturevissenschaften. Vortrag, gehalten in der dritten allgemeinen Sitzung der 62. Versammlung deutscher Naturforscher und Aerzte zu Heidelberg. Von Prof. Dr. Th. Puschmann in Wien. (Wiener Med. Blatter, Sept. 26, 1889.)

informs us that plastic operations were practiced in ancient times, although in 1742 the medical faculty of Paris declared them impossible. The ligation of large and the torsion of small vessels, the formation of flaps in amputations and version in malpositions, were known to the ancients, were clean forgotten, and had to be re-discovered. Hippocrates taught the infectiousness of phthisis, and treated the disease by milk diet, sea-voyages, and changes of climate,—that is, residence in Egypt, one of the favorite sanitary resorts of the present day. It is a stock remark that he recognized pleural effusions by means of succussion, but Professor Puschmann attributes to him a more extended knowledge and use of auscultation. Pliny advises abstinence from water in the treatment of obesity, a measure which enters into the methods of Ebstein and Œrtel. The words of Galen bear a strange significance when he says that sound extends itself like a wave, or when he likens respiration to combustion.

In truth, however, it is with medical as with political or social history. There are countries and periods almost devoid of interest and im portance. In the long history of Palmyra, whose name do we remember but Zenobia's, or how can we feel any interest in the corrupt annals of the Byzantine Empire? So it has been with medicine. Our attention is chiefly claimed by certain great men, great periods, and great movements. These are of sufficient importance, in themselves and relatively, to invite study. A series of concise monographs would, perhaps, secure the attention of many whom larger treatises would repel. In addition to Hippocrates and Galen, the most conspicuous names in Greek medicine are those of Aristotle and the Alexandrian anatomists. Aristotle acquired great knowledge of comparative anatomy. Herophilus and Erasistratus were the first to study and teach anatomy from the dead human subjects. In modern times the revival of anatomical studies by Mondino and his successors, above all by Vesalius, offers an attractive subject. The story of Harvey's immortal discovery is full of charm, led up to, as it had been, by the investigations of Servetus, Columbus, and Cæsalpinus. The study of the physical and mechanical principles active in physiology, instituted by Borelli, and the efforts of the iatro-chemists to explain vital processes, pointed in the direction of the scientific physiology of our own day. The gradual discovery of the absorbent system was the work of Aselli, Pecquet, William Hunter, Hewson, and others. The brilliant and varied investigations of John Hunter inaugurated a new era in the study of surgery. Finally, as we approach our own times, a great scientific movement may be traced in biology, which has reconstructed our conceptions of anatomy and physiology, has given us the cell-doctrine, the theory of evolution, and the germ-origin of disease.

It is well for the busiest among us to devote an occasional hour to a retrospect of the achievements of his profession and to revive his sense of fellowship with so many great predecessors.

MEDICAL NEWS AND MISCELLANY.

THE best cure for insomnia that we know of is to have somebody keep telling you breakfast is ready.

"MISFORTUNES come in pairs," especially when the pears are green; then they come in doubles.

DR. COMLY, of West Philadelphia, died suddenly on January 4th.

DR. E. L. DUER, of Philadelphia, has removed to 1606 Locust Street.

NOWADAYS the humblest Russian peasant can be as influenzial as the Czar.

DR. JOHN H. SPATZ, one of the oldest physicians of Berks County, died last month.

THE SOUTHERN CALIFORNIA MEDICAL SOCIETY will meet at Santa Barbara in June.

THE dental course at the University of Pennsylvania has been extended to three years.

M. ZOLA, it is said, has reduced his weight by 45 pounds, through abstinence from liquids.

DR. JOHN S. STEWART has removed from 1617 Arch Street to 1716 Chestnut Street, Philadelphia.

PROF. ROBERT KOCH is preparing an elaborate treatise on the life, works, and death of the bacillus.

DR. FRITZ BRAMANN has been appointed Extraordinary Professor of Surgery in the University of Berlin.

DR. CHARLES O'DONOVAN, President of the Alumni of the Maryland University, died recently of heart disease.

Hotel Clerk—"Check your grip, sir?"
Guest (with the influenza)—"Good Lord, yes; can you do it?"

THE chair of surgery, at Halle, vacant by the death of Volkmann, will, it is reported, be offered to Dr. Schede, of Hamburg.

OVER 50 cremations have taken place at the Philadelphia Crematorium, in East Washington Lane, during the year just ended.

DR. JAMES H. HUTCHINSON, a prominent practitioner and member of the Board of Trustees, died suddenly on December 27th.

LEPROSY STATION.—At a dinner given in London on January 14th, effort was made to raise a fund to establish a leprosy station.

DR. DAVID PRINCE, who died in December at Jacksonville, Ill., at the age of 74 years, was one of the oldest successful surgeons in the State.

THE medical and surgical staffs of the Pennsylvania Hospital have adopted resolutions eulogizing the late Dr. James H. Hutchinson.

Patient—"Do cucumbers distress all people, doctor?"
Doctor.—"No, sir; only those who eat them."

A NEW DANISH PHARMACOPŒIA.—A new Danish Pharmacopœia is being prepared by a committee which is at present sitting at Copenhagen.

DR. WILLIAM H. SHIPPS, of Bordentown, has been appointed surgeon by the Pennsylvania Railroad Company, to succeed Dr. Lewis Jamison.

IT has been estimated that about 25 tons of quinine pills have been consumed in this country during the first two weeks of the influenza epidemic.

DEATHS FROM INFLUENZA.—The number of deaths from influenza in Philadelphia directly and indirectly during the past few weeks have been very great.

IT is said that the grippe microbe clings tenaciously to paper money. People should, therefore, handle it with the greatest caution, particularly $1000 bills.

NEW YORK ACADEMY OF MEDICINE.—Mrs. Eliza C. Farnham has given $10,000 to the library in memory of her deceased husband, Dr. Horace P. Farnham.

CHOLERA IN PERSIA.—Consular reports published say that cholera is raging at Hamaden, in Persia; that it is very fatal; and that it is feared it will reach Teheran in the spring.

A BOAST is made that a Boston man has discovered a process of making alcohol out of beans. It would be a funny farinaceous material that alcohol cannot be made out of.

STATE HOSPITAL.—At the annual meeting of the Trustees of the State Hospital, held at Ashland, Pa., Dr. J. C. Biddle was re-elected Superintendent and Surgeon for five years.

THE funeral services over the remains of the late Dr. Charles H. Nichols, Superintendent of the Bloomingdale Asylum, were held on December 19th, at the chapel of that institution.

THE Congress of Internal Medicine, which, up to the present, has always held its annual gathering at Wiesbaden, will, on the invitation of Professor Nothnagel, meet at Vienna in 1890.

JUST now people are forcibly reminded of Tennyson's pathetic lines: "A sneeze that is all a sneeze may be met and fought outright, but a sneeze that is a part of the grip is a harder matter to fight."

DR. GEORGE MCCLELLAN gave a large and elegant reception at his residence, S. E. cor. Broad and Spruce Streets, Philadelphia, last month, to the Association of American Anatomists.

PHILADELPHIA ACADEMY OF SURGERY.—At the annual meeting, held on Monday evening, January 6, 1890, Dr. De Forest Willard delivered the annual oration on "Erasion in Diseases of the Joints."

Patient—"That medicine you gave me for my cold, doctor, cured me entirely."
Doctor (in surprise)—"Did it? Well, blamed if I don't believe I'll try it myself. I can't get rid of mine."

DR. G. M. WELLS, Chief Physician of the Philadelphia Hospital, resigned January 13th, to take effect February 15th. Dr. D. L. Brook, District Physician of Philadelphia, also tendered his resignation.

DR. OLIVER WENDELL HOLMES will not follow in the footsteps of Tennyson and Browning, and publish a volume of poems in his old age. He has not given up his literary pursuits, but it is said that he now destroys what he writes.

DR. FREDERICK BRAMANN, who performed tracheotomy on Emperor Frederick in 1888, has now become Extraordinary Professor of Surgery in the University of Berlin. He was graduated in medicine and surgery barely ten years ago.

Dr. S. V. Clevenger, of Chicago, who limits his practice to nervous and mental diseases, spent a few days last month in Philadelphia. The Doctor is author of a most excellent work on Spinal Concussion, just issued by F. A. Davis.

In view of the spread of venereal disease in Italy since the repeal of the regulations formerly in force, the Minister of the Interior has appointed a Commission to investigate the subject and suggest measures for the repression of prostitution and syphilis.

The Mexicans have no confidence in a young doctor until he has had a couple of years' practice. Then they make an inventory of his patients, and if he has cured more than he has killed they recognize him, no matter whether he has a diploma or not.

City Hospital, Baltimore.—The faculty of the College of Physicians and Surgeons of Baltimore, Maryland, gave a reception, with an inspection, at the opening of the medical and surgical service of the new city hospital on Wednesday, January 1st.

There is no occasion for alarm. If the influenza gets hold of you it will turn you into one large, burning, lachrymose, damp, and weary sneeze for a few days, and then you will be in shape to enjoy the sufferings of those about you with tolerable equanimity.

An eminent scientist says that the grippe is simply the old horse complaint, "pink-eye." Pink-eye is somewhat of a novelty in this country; if it is anything like the disease called by courtesy "red-eye," we join the Kentuckians, and take off our hat to it.

Palmer—"It's mighty funny, but there are no less than six people with whom I have been talking within a week who are now dead."

Curtleigh—"I haven't the least doubt of it. I'm sorry I can't stop to listen to you to-day, but the fact is I'm not prepared."

The latest thing in exhibitions is an exhibition of nursing uniforms to be held shortly at the London Charing Cross Hospital. The uniforms, which will be worn by dolls, have been made by nurses throughout England, and represent more than a hundred different institutions.

The first issue of the Kansas Medical Catalogue, published at Fort Scott, Kan., has just appeared. It is edited by Drs. F. F. Dickman, J. B. Carver, and J. M. Poindexter, and contains much original matter and items of great interest of the profession in Kansas.

Balneologists.—The twelfth Congress of Balneologists will meet March 8th and 9th, at the Pharmacological Institute, at Berlin, under the presidency of Professor Liebrich. Communications should be sent to the General Secretary, Dr. Brock, Schmidtstrasse 42, Berlin S.O.

The physicians of Findlay, Ohio, are wise in their generation. Just as the place was threatened by the grippe they formed a "trust," and raised the price of professional visits from $1 to $1.50 each. The Findlay citizen thinks the doctors very mean, but he can only grin and bear the imposition.—*Times.*

Of all the silly rumors that go to make up the staple features of European journalism, that which credits the Kaiser with the intention of abdicating is the most absurd. The young Emperor is yet scarcely warm in his throne, and it is safe to say that before he leaves it the map of Europe will have undergone a change.

Dr. G. W. Lawrence, the oldest and most prominent resident physician of Hot Springs, died last month, aged 70. Dr. Lawrence was appointed at an early age as Assistant Surgeon of the United States Navy, and served in the squadron of Commodore Stockton, at the taking of Monterey, Cal., then the seat of Mexican authority in the Territory.

Neurology at the International Medical Congress.—The following, it is said, will be the subjects for discussion in the Section of Neurology at the Tenth International Medical Congress, at Berlin: 1. Surgery of the Brain and Spinal Cord; 2. Traumatic Psychoses and Neuroses; 3. The Relation of Syphilis to Diseases of the Central Nervous System.

By the late Dr. Ricord's will the Paris Academié de Médecine was left 10,000 francs, the French Surgical Society 5000 francs, and the Society for the Advancement of Medicine in France also 10,000 francs. His large library was bequeathed to the Midi Hospital. It is also stated that the Midi Hospital shall hereafter be called the Ricord Hospital.—*London Hospital Gazette.*

Medical Appointment.—Dr. John Aulde recently resigned as Demonstrator of Physical Diagnosis in the Medico Chirurgical College of Philadelphia, in order to accept the appointment as Demonstrator of Clinical Medicine in the same institution. Dr. Aulde is a careful writer, and gives much time and labor to the subject of clinical medicine, in which he is much interested.

Death of an Eminent Specialist.—Professor Westphal, of Berlin, one of the most distinguished living authorities on mental diseases, and a very brilliant lecturer, has himself fallen a victim to the disease he has so successfully com-

bated in others. Some time ago his nervous system was affected, and gradually brain disease supervened. The hopes of his recovery which were at first entertained have now been given up.

Episcopal Hospital.—The contributors to the P. E. Hospital met on January 7th, with Lemuel Coffin in the chair. During the past year 1791 patients were received in the institution, and 1307 were discharged cured, 305 improved, 33 transferred, and 45 died. It cost $64,210.49 to maintain the hospital during the year. Reference was made to the munificence of the family of the late George L. Harrison, who are to erect and furnish a home for incurable patients.

Embalming.—Our present methods of embalming are so superior to those of the ancient Egyptians that a modern embalmer might leave a human body so perfect that, after 3000 years, says the *Lancet*, "not a lineament need be wanting for identification that would not satisfy even the contemporary of the dead person." The mummies unrolled nowadays are dried up out of recognition. But the embalming process is liable to go out of use before the advancing practice of cremation.

Children's Hospital—A Year's Work.—At the annual meeting of the Contributors and Managers of the Children's Hospital of Philadelphia, Dr. F. W. Lewis, the Secretary of the Board, presented his report, in which he stated that the number treated in the hospital during the past year was 367, and at the Dispensary 13,655 visits were paid. Eighteen cases of croupous disease were operated on with more than average success. The Convalescent Branch was opened in July last with 16 patients.

The Sudden Death of a Surgeon.—Dr. Lewis A. Sayre, a well-known New York surgeon, and son of the distinguished Professor Sayre, died suddenly, January 3d, from heart failure, at the home of his father, 285 Fifth Avenue. His widow and three children survive him. Dr. Sayre was graduated from Bellevue Hospital Medical College in 1876. He was a member of the New York County Medical Society, the American Medical Association, the Pathological Society, and the Neurological Society.

People We Have Not Met.—The bride who gave herself away. The magistrate who couldn't parse a sentence. The barber who cut his heirs off with a shilling. The sailor who would drink any port in a storm. The clerk who was always balancing his books to keep his accounts straight. The dancer who was never caught tripping. The gas-stoker who made the retort courteous. The counsel who got a witness in the box without trying to shut him up in it. The dentist who only drew stumps at seven o'clock.—*London Fun.*

His Library and Surgical Instruments.—Theodore L. Conklin, the Clark Street saloonkeeper, and particular friend of Dr. Cronin, filed in the Probate Court an inventory of Cronin's estate. Conklin is the administrator to collect, and his report shows that the only property left by the murdered man consists of a library worth $500, and surgical instruments worth $100.

The inventory was approved, but no final disposition was made of the property, which will go to Conklin as a creditor, and Dr. Cronin's brother in Arkansas.

The Horse Blew First.—A veterinary student, having been sent to administer a dose to a sick horse, was asked by his preceptor what success he met with. "None at all," he replied; the horse bit me." The preceptor then explained that he should have put the powder into a medicine-tube, and, placing one end in the side of the horse's mouth, blow it into his throat; whereupon the student proceeded to act upon the suggestion. Returning again, he was asked what success he had this time. "None at all," he replied; "the horse blew first!"

Camden City, N. J., Medical Society.—At the regular meeting of the Camden City Medical Society, held January 9th, Dr. Sophia Presley, the first woman physician, was elected a member. At this gathering the following officers were elected: President, Dr. Daniel Strock; Vice-President, Dr. H. F. Palm; Secretary, Dr. W. A. Davis; Treasurer, Dr. George T. Robinson; Librarian, Dr. H. F. Palm; Reporter, Dr. E. P. Townsend; Dispensary Managers, Drs. H. Genet Taylor, A. M. Mecray, H. H. Davis, W. A. Davis, E. P. Townsend, Daniel Strock, D. Benjamin, and E. L. B. Godfrey.

Banquet of the Class of '78, Jefferson Medical College.—The second annual banquet of the Class of '78, Jefferson Medical College, was held at Hotel Bellevue, December 20, 1889. Among the gentlemen who responded to toasts were A. H. Hulshizer, Charles W. Karsner, Lambert Ott, J. A. Wamsley, John C. Da Costa, H. H. Drake, H. A. Brous, J. Moore Campbell, James Lincoln, and E. T. Wilhelm.

The President, L. Webster Fox, appointed Drs. J. Moore Campbell, Ott, Wamsley, Brous, and Hulshizer a committee to arrange for the third annual banquet, to be held November 19, 1890.

Skeletons in Houses.—It is said that there is a skeleton in every house, but it is, perhaps, not generally known that there was one, literally, in Robert Browning's apartment in the Casa Guida, in Florence, some thirty years ago. It was kept

there in a cupboard, and was intended as a model for anatomical drawing. One night, however, at a time when Home, the spiritualist, was in Florence, and a constant visitor at the Casa Guida—for both Browning and his wife were firm believers in Home at this time, though the husband's belief faded in the face of the disclosures of after years—the skeleton fell from its resting-place and frightened a lady visitor into a fit. It is hardly needful to say that such an untoward occurrence was a source of great distress to Mrs. Browning, and the skeleton promptly disappeared, to be seen no more.—*Evening Telegraph.*

Hot-Air Treatment of Phthisis. — Dr. Weigert's hot-air treatment of phthisis has been carefully tested in St. Petersburg, with unsatisfactory results. The cases selected were chiefly those where the tuberculosis had affected the upper parts of the lungs or the laryngeal tissues, the author thinking that whatever might be the temperature of the hot air, by the time it had penetrated to the remote parts of the pulmonary substance, it must, at least, reach the larynx without much cooling, so that if the inhalation of heated air is capable of exerting any influence on the tubercle bacilli, a throat case presents the most favorable opportunity for testing its power. In spite of every precaution, however, no good resulted from the treatment, several of the patients succumbing to the disease, and the others showing no signs of any real improvement.

A Substitute for Coffee.—A new substitute for coffee may turn up in a berry known as "gaertnera." The British Consul at Reunion says that at one time he has received many letters from merchants in England asking for information respecting a shrub then called "mussaenda," the discovery of which, it had been said in some commercial journals, would deal a severe blow to the coffee and chicory trade. About two years ago a rumor was spread that the berry of this shrub could be advantageously employed as a substitute for coffee and chicory. It grows to about 10 feet high, has very few leaves, and its branches are wide apart. The berries do not grow all along the branches, as is the case with coffee, but in bunches at their extremities. At present it is only met with in the mountains, where it grows wild. It might be produced on an extensive scale; but, with its inferiority in fragrance and color, it could hardly compete with coffee.

University of Pennsylvania.— Auxiliary Department of Medicine, Dec. 27, 1889. Copy of Resolutions of the Auxiliary Faculty of Medicine: "The members of the Auxiliary Faculty of Medicine, in the University of Pennsylvania, having learned with unfeigned regret of the resignation of Prof. Samuel B. Howell, M.D., desire to place on record the affectionate esteem in which they have held their late colleague.

"*Therefore, be it resolved:* That we have always found Professor Howell to be an efficient officer, and a generous, unselfish associate; and that in sundering the relations which he has for so many years maintained with us and with the University, both a loss to the institution and to ourselves is sustained.

"*Resolved further:* That this resolution be placed on the minutes book of the Faculty, and a copy of it forwarded by the Dean to Professor Howell."—Samuel G. Dixon, *Dean.*

Local Longevity.—The total number of deaths of octogenarians in Philadelphia during the last year was 960, of which 412 were males and 548 females. Of the former 51 lived to be beyond ninety, and their combined ages make a total of 4735 years, while the aggregate ages of 104 women, aged ninety or over, reached 9821 years. For the whole year the total figures are: Eighty years, 138; eighty-one years, 96; eighty-two years, 91; eighty-three years, 81; eighty-four years, 86; eighty-five years, 100; eighty-six years, 66; eighty-seven years, 52; eighty-eight years, 48; eighty-nine years, 47; ninety years, 41; ninety-one years, 32; ninety-two years, 23; ninety-three years, 6; ninety-four years, 11; ninety-five years, 14; ninety-six years, 9; ninety-seven years, 1; ninety-eight years, 11; ninety-nine years, 2; one hundred years, 1; one hundred and one years, 1; one hundred and two years, 1; one hundred and three years, 2.—*Exchange.*

Money Spent for Intoxicants.—The actual amount of malt liquors consumed in 1888 was 767,587,056 gallons. This includes not quite 3,000,000 gallons of imported beer and ale. The manufacturers' price to the retailer is above rather than below 20 cents per gallon. At 20 cents the cost to the dealers would be $153,517,411. The retailers get an average of 60 cents per gallon, which makes the cost to the consumers $460,522,233, which the American people spend annually for malt liquor, principally beer. The most careful estimate puts the cost of wine to the consumer at $72,670,136, and of distilled spirits $379,226,860. This gives us a grand total of $912,449,129, nearly $1,000,000,000 spent annually for liquor by the people of the United States. How few people realize the enormous expense the use of liquor entails on the people. Aside from the tax imposed by the general government, the local tax on the trade is not 5 per cent. of the cost. The cost to Ohio is about $60,000,000 per annum; the local tax is $2,250,000, which is but a trifle over 4 per cent.—*Sandusky (Ohio) Register.*

MORALITY IN OUR SCHOOLS.—Do not the facts disclosed by our social statistics cause it to appear that, in the adjustment of our schools, we have gone too far in our aim for material advancement and development of wealth, and that we are correspondingly losing in the direction of moral growth and culture? Let us, then, imitate the prudence of the railway engineer, and, though seeking to retain the advantages which are already ours, let us not be blind to the visible defects and besetting dangers of our present system. Let us determine the composition of the training of our public schools; let us see if its parts are well proportioned, and the compound skillfully wrought, and a thorough analysis may prove, as with the Bessemer steel rail, that, by a judicious change in the nature or proportion of the ingredients, our rapid increase of wealth may suffer a trifling diminution, but the moral balance of education will be restored, and material, political, and moral progress will move forward together.—From "*Public Schools as Affecting Crime and Vice*," by BENJAMIN REECE, in the *Popular Science Monthly* for January.

AN OLD MEDICAL WORK.—E. Matthews, of North Wales, of this State, writes as follows to the Philadelphia *Press*:—

In the *Press* of December 20th I see mention of several old medical works. There is one owned by Mrs. William B. Thomas, of Montgomeryville, three miles from here, which is much older than the others heretofore brought to your notice. It was written in German in 1564 by Christopher Wintzing, and was translated into English by Jacob Mosan, and printed in London in 1621. It is a book of 272 pages. The volume is quite interesting, containing many prescriptions. It is a work of much research and erudition, and reflects the condition of the medical knowledge of that time.

Most of the modern maladies that afflict humanity can be recognized in the description of diseases, though sometimes under different names. All fevers are classified under "agues." Leprosy and plague were then common in Europe, and so receive proportionate attention. Small-pox is not mentioned under that name, but seems to be called "swine-pox." Pulmonary consumption was a general and a fatal disease 325 years ago, just as now, and this old writer speaks of it as a "wasting of the lights," and says it was generally "incurable." The writer of the book was well acquainted with the works of the ancient Greek and Latin physicians, and frequently refers to them.

TWO THOUSAND CASES.—The medical fraternity, if any of them have the time to look at the papers nowadays, may be amused, and possibly reminded of experiences of their own, by an occurrence which grew out of the prevailing epidemic, and which the "Listener" thus tells o in the Boston Transcript: A suburban lady, who is always an ardent partisan of her family physician, as most ladies are, remarked the other day to a feminine friend, who was calling at the house:—

"Just think how awfully the grip is prevailing! Why, there is Dr. Bolus, our family physician; he is attending 2000 cases of it himself."

"Two thousand cases!" The other could not help looking astonished and incredulous.

"Oh, yes," said the lady, "I *know* he is attending 2000 cases."

"Perhaps," said the other, "but he has to get around very lively, indeed, to do it." She took a pencil from her pocket and made a little calculation on the back of an envelope. "Let's see; oh, no doubt he could do it, if he kept going every minute of the 24 hours, as most of the doctors are doing; but if he gave each patient 20 seconds of his time, that would leave him just 23 1-5 seconds to get to the next patient, and he would have to drive pretty fast, wouldn't he?"—*Philadelphia Ledger.*

[It appears to be too frequent a saying among physicians to express themselves as attending more patients than the hours of the day or night will permit.—ED.]

SUBSTITUTION.—In Kansas City recently seven druggists were each fined $500 and costs for counterfeit-mark preparation, the ingredients of which are well known. This suggests some thoughts on a subject which appears to have received but little consideration from the profession in general. Is it proper for the physician knowingly to countenance the extemporaneous preparation by his druggist of such remedies, the formulas of which have been given to the profession and approved by them? In other words, is it proper to allow the substitution of an extemporaneous preparation for one with which we are familiar, upon whose effects we have learned to rely?

It is reasonable to suppose that the company manufacturing a remedy of this kind, dependent as it is for its sale on the satisfaction which it affords to the profession, and the approval which they in turn bestow on it, would ever observe the strictest precautions in the procurement and selection of the drugs and other materials used in its make-up, and would guard most religiously the utmost precision and regularity in the various methods and steps of its preparation in order to attain unvarying uniformity and reliability of effects. And it is perfectly patent that the wishes of the profession in this regard are much more liable to be fulfilled under the above conditions than when the desired remedy is prepared under the vacillating conditions of all grades of drugs, degrees of skill, etc., to be found in drug stores.

We believe, therefore, that the substitution or proffer by the druggist of a home-made preparation of this kind, for the one which is prescribed, should be deprecated by the profession as emphatically as is its cousin, the substitution of one drug for another.—*Weekly Medical Review*, St. Louis, Mo., December 14, 1889.

ATKINSON'S DIRECTORY.—Prof. William B. Atkinson makes the following announcement:

The Medical Directory and Intelligencer of the States of Pennsylvania, Delaware, and vicinity, being the eighth edition of what was formerly the Philadelphia Medical Register and Directory, is again offered to the medical public in response to the request of many members of the profession and others. The editor and publisher, in issuing this edition, propose a new departure, that is, to offer the book as a compliment to each physician whose name appears in it. It will contain lists of the profession, giving, as formerly, the place and date of graduation, office hours, and residence, as far as these can be obtained, for the city of Philadelphia, the States of Pennsylvania and Delaware, and the city of Camden and vicinity.

The Medical Intelligencer will contain, in a condensed form, all the usual information relative to the associations, colleges, hospitals, special and general; dispensaries, homes, etc. To these will be added other matters which are deemed of such interest to the profession that each physician will find it to his purpose to retain the book at hand for ready reference.

For this reason it is believed that the work will offer to all who desire to keep their business notices before the profession an exceptional opportunity.

The edition will be 7000 copies, and will be delivered by mail or by messenger to each physician.

It is the intention of the publisher, George Keil, 831 Arch Street, to have it ready for distribution early in the year 1890.

IN MEMORIAM.—The Faculty of the University of Virginia, at its regular meeting of December 2, 1889, make record of the death of Prof. James Lawrence Gabell, M.A.,M.D.,LL.D. He died August 13, 1889, aged 76 years. In the year 1833 he attained the degree of Master of Arts of the University of Virginia; in 1834 he graduated as Doctor of Medicine in the University of Maryland; in 1873 he received the title of Doctor of Laws from Hampden-Sidney College, Virginia.

In December of 1837 he was called from professional study in Europe to the chair of Anatomy and Surgery in the University of Virginia, afterward changed to the chair of Physiology and Surgery, which he occupied until a few weeks before his death, thus fulfilling nearly fifty-two years of professional service. During the last thirty years of this service he was the senior professor of the University.

As a member of the Faculty of the University he was conservative in spirit, wise and weighty in counsel, just and firm in judgment.

As a teacher of Physiology and Surgery he was diligent and successful, constantly imparting the latest results of science, and contributing to its advance.

As a physician he was skillful and sympathetic, always ready to relieve suffering in hospital or at home.

As an associate he was a friend to each one of us, a private counselor, and a peacemaker. His scholarly attainments and the great dignity of his character inspired profound respect, and ever aroused our earnest emulation.

In his death the University has lost a strong support, the Church a sincere Christian, the State an upright citizen, the world a rare man.

As it is impossible within the present limits to do justice to his worth, or to the services he rendered in his day, it is proposed to hold memorial exercises on some suitable occasion in public, which shall more fully emphasize and proclaim the excellence of his character and the value of the work of his life.

HEALTH IN MICHIGAN.—For the week ending January 4, 1890, the postal-card reports indicate that scarlet fever, influenza, puerperal fever, cerebro-spinal meningitis, inflammation of brain, remittent fever, membranous croup, cholera infantum, and cholera morbus increased; and that measles, typhoid fever, whooping-cough, and dysentery decreased in area of prevalence. (Influenza increased 103 per cent. over the preceding week.)

At the State capital the prevailing winds for the week ending January 4th were southeast, and, compared with the preceding week, the temperature was lower; the absolute humidity was less; the relative humidity and the day and night ozone were more.

Including reports by regular observers and others, *diphtheria* was reported present during the week ending January 4th, and since, at *twenty-seven* places; Bainbridge Township, Breitung Township, Casco Township, Detroit, Evart, East Saginaw, Genessee Township, Grand Rapids, Gaines Township, Howell, Hastings, Hillsdale, Kalamazoo, Lansing, Muskegon, Manistee Township, Richland Township, Rich Township, Ravenna Township, Saginaw, Spalding Township, Torch Lake Township, Taylor Township, Texas Township, Trowbridge Township, West Branch and Winfield Township; *scarlet fever* increased by 83 per cent., and was reported at *thirty-three* places: Brighton, Bliss Township, Center Town-

ship, Corunna, Concord, Caledonia Township, Dundee, Denver Township, Detroit, East Tawas, Eagle Township, Fabius Township, Grand Rapids, Grass Lake, Howell, Howell Township, Howard City, Kalamazoo, Keeler Township, Metamora Township, Muskegon, Monroe, Newberg Township, New Buffalo, Novi Township, Newton Township, Plymouth, Superior Township, Spring Lake, Sand Beach Township, St. Johns, West Branch, and White Water Township; *typhoid fever* at *eighteen* places: Albion, Cadillac, Cannonsburg, Corunna, Clam Lake Township, Detroit, Deerfield Township, Grand Rapids, Gladstone, Muskegon, Maple Grove Township, Metamora Township, North Star Township, Penn Township, Richland Township, Taylor Township, Wyandotte, and Wakefield Township; *measles* decreased by 64 per cent., and was reported at *four* places: Charlotte, Fowler, Grand Rapids, and Otsego.—HENRY B. BAKER, *Secretary, Lansing, Michigan.*

THE WATER-SUPPLY.—Dr. Milton A. Nobles, of 1628 North Fifteenth Street, Philadelphia, has written a letter on the water-supply, as related to this city, in the Evening Telegraph. As the Doctor has given much attention to the study of water in relation to health, his deductions, which are as follows, will be interesting to physicians:—

First. Chemical analysis of the samples of Schuylkill water taken from Fairmount Dam, Phœnixville, and other points, show that little or no difference as to purity exists at any of the various points.

Second. The population of the Schuylkill Valley is so dense, the amount of manufacture so great, and the character of the stream such that throughout its course it acts as a sewer, and at no point in its course can it be used as a source of water-supply without menace to the health of those so using it.

The deductions are self-evident—

First. That the quality of water supplied will not be improved by change of source from Fairmount Dam to some other point on the Schuylkill.

Second. That the quality of water supplied will not be sufficiently improved to make such a change desirable.

Third. That ultimately the source of water supply must be from the upper regions of the Delaware (or Lehigh) River, and that any change not in that direction will necessarily be but temporary, and all expense in such direction a waste of funds.

If these reasons are not sufficient to dispose of the present Schuylkill scheme, allow me to add the following:—

First. The Schuylkill Navigation Company's charter does not allow water to be sold or leased, except out of the surplus water of the river, after navigation is fully supplied. The only "right" which may be purchased of them, therefore, is the right to use the surplus of water above the amount necessary for the purposes of navigation. This surplus water would not be sufficient to afford a supply for the use of the city ten days in the year.

Second. The right to use the water of the Schuylkill River in any portion of its course, down to the very last drop, for all purposes other than those of navigation and power, is inalienably possessed by every individual or collection of individuals inhabiting the area drained by the Schuylkill. The attempt of Councils to purchase what we already possess is probably an attempt to subsidize the members of Councils interested.

THE RUSSIAN INFLUENZA; FEATURES OF THE EPIDEMIC.—Although the existence of an epidemic of dengue fever in Asia Minor during the past autumn, and certain peculiarities in the symptoms observed in some of the sufferers from the present European epidemic have caused some doubts to be expressed, further information tends to confirm the opinion we ventured a few weeks ago that the disease is really epidemic influenza. Professor Leyden in Berlin and Dr. Proust in Paris have both expressed the same view as to the nature of the malady. Epidemic influenza is a specific fever, which must not be confounded with the local affection of the nose and throat to which the term influenza is commonly applied in this country. It is important that this should be generally recognized, for epidemic influenza, though a mild disease if properly treated, may become dangerous to life if neglected. This is particularly true of the present epidemic, for observers in all countries agree that relapses are very apt to occur. This has been noticed by our correspondents in St. Petersburg, Vienna, and Paris, and a well-known practitioner in the West End of London writes to us, with reference to the cases now and recently under his treatment: "I am convinced that it is a most dangerous disease to trifle with, owing to the relapses, which, so far as I have seen, have occurred on the eighth day. I think the public should be warned to go to bed directly they have the shivering and lumbar pain." Dr. Proust, in Paris, expresses the same opinion. In his official letter to the Minister of the Interior he warns sufferers that exposure to cold, not merely while the disease is at its height, but during convalescence, may altogether change the character of the disease. Most of the deaths which have occurred would seem to have been due to imprudence. The attack produces a good deal of anæmia and nervous depression, and any imprudence committed before complete recovery may bring on a fatal attack of pneumonia or bronchitis, which might otherwise have been

avoided. The poison of influenza, having entered into the system, does not always attack the mucous membranes of the nose and chest. In some persons it is the stomach and digestive organs which are attacked, leading to violent vomiting or colic and diarrhœa; most of the cases hitherto observed in London appear to have been of this class. In other cases catarrhal symptoms of any kind are absent or very slight, but the nervous prostration which ordinarily accompanies is present to a severe degree, the poison appearing to have specially selected the central nervous system.—*The British Medical Journal.*

[The course of influenza given above appears similar in every respects to its action also in Philadelphia. The apparent light character of the attack, often followed by relapse, and terminating in death from the imprudence of the patient, has been the rule. The number of deaths from pneumonia, superinduced by the influenza during the epidemic, has also been very large.—ED.]

BOOK REVIEWS.

Don't Forget It Calendar. New York: E. B. Treat, Publisher. Price, 15 cents; two for 25 cents.

The ninth yearly appearance, for 1890, has just been issued. It is convenient and well arranged.

Electrician's Pocket Companion. By ANDREW JAMIESON, C.E., F.R.S.E. 12mo, cloth, 64 pp. New York: The Industrial Publication Company, 9 Barclay Street. Price, 75 cents.

This little book is invaluable to the practical electrician and to the physician who desires, as he should, to understand the methods of testing his batteries and of working out the formula involved in resistances, both of apparatus and patient. It covers every branch which the practitioner will need directions concerning, and it will give him an insight into practical electrical work which must be of great service to him. The illustrations are good, and sufficiently numerous to elucidate the points discussed in the book.

International Medical Annual for 1890. E. B. Treat, Publisher, 5 Cooper Union, New York.

The eighth yearly issue of this publication is announced for early delivery. The prospectus gives promise of excellencies surpassing all former editions. Its thirty-seven editors in the several departments are to give a summary of new remedies alphabetically arranged, also a *résumé* of new treatment in dictionary form; with references to the medical literature of the world pertaining to the year's progress of medicine.

Such a practical and helpful volume is of inestimable value to the medical profession. In one volume of about 600 octavo pages; price, $2.75 post free.

The Cosmopolitan. An Illustrated Monthly Magazine. One Year, $2.40. John Brisben Walker, Editor. January, 1890.

The opening number for 1890 is certainly a most interesting one. It contains communications from some of the ablest writers of the day. Art and science are well portrayed, especially in the writings of Beckwith on Bougureau, and Boyesen on Columbia College. Thomas A. Janvier presents in this issue a very attractive novel on "St. Mary of the Angel." The illustrations, which are very many, are well executed, and will alone repay one for examining the Cosmopolitan. As a household magazine it is at present unequaled for the moderate price for which it is furnished. The type is both clear and attractive. It not only possesses all these good qualities, but is likewise edited by one having superior knowledge on journalism. The admirable arrangement of the contributions, many of which are of the choicest literary production, shows the master mind in conducting this useful and practical illustrated monthly magazine.

The Ophthalmic Review, Vol. IX, 1890. Edited by J. B. Lawford, M.D., London; Karl Grossman, Liverpool; Priestley Smith, Birmingham; John B. Story, M.D., Dublin; and Edward Jackson, M.D., 215 South Seventeenth Street, Philadelphia, to whom all American communications concerning editorial matters, copies of papers, books for review, etc., should be addressed. Monthly. Subscription $3.00 per annum. Sample numbers, 25 cents. Philadelphia: P. Blakiston, Son & Co., 1012 Walnut Street.

The Ophthalmic Review has hitherto devoted its space almost entirely to English and foreign contributions. Its success in this field has led the editors and publishers to increase its scope by including an index of American articles on ophthalmological subjects, reviews of the most important papers, original articles by well-known men, and reports of the meetings of the American Ophthalmological Society, and the section on Ophthalmology of the American Medical Association.

The Popular Science Monthly for January, 1890. New York: D. Appleton & Co.

Several articles in this issue of the Monthly are well calculated to attract the attention of the observing physician, but none of them will be read with greater interest than the sketch of Alexander Wilson, who secured fame through

his work on the birds of North America. At the present time it is very difficult for us to realize the trials and obstacles which this industrious author met and conquered, but it teaches us a valuable lesson which some are even now waiting for, namely, that each one has a capacity for certain work, but that it will not be developed unsought. It was through incessant labor and toil that Alexander Wilson, a poor boy and unlettered man, finally found his life-work and created a name for himself that will be a monument for all time.

To those of our profession who reside in the Southern States, the article from the pen of Dr. Edmund Atkinson, whose work has already been referred to in complimentary terms in these columns, should receive most careful attention. It is devoted to a discussion of the difficulties in the way of creating a great cotton industry in that section of the South which is blessed with an abundance of raw material. Dr. Atkinson claims, and apparently fortifies his position, that cotton cannot be so successfully worked in a country which is constantly subject to such a low relative humidity as that found in any of the Southern States. He points out that nowhere has this industry so prospered as in England, and yet he shows that it has been the most successful in certain sections where the humidity of the atmosphere is such that it is practically saturated. As regards the most desirable section in this country he indicates the southern shores of New England, and gives some valuable tables showing the relative humidity, which have been prepared from figures obtained from Signal Officer Greely. Should the anticipations of Dr. Atkinson be warranted by the experience of the mills, it would be a great loss to have many large and extensive plants located in a section of the country where the capital could be employed to much more advantage than in the manufacture of cotton and cotton goods.

Benjamin Reece contributes an interesting and suggestive paper upon the subject, "Public Schools as Affecting Vice and Crime." "The Taouist Religion" is the subject of an exceedingly interesting sketch by Warren G. Benton. Adele M. Fielde gives us the substance of the Chinese theory of evolution, and there is an unusually strong editorial upon Tolstoi's "Confession," and some very practical views advanced on the land question by the editor. Among other interesting miscellany may be noted the announcement that a telegraphone has been invented by means of which a person at a distance can have his message recorded at the other end of the telephone-line if the person to whom it is directed be not there, and can have it repeated to himself for his own satisfaction. This suggests the possibility of the human voice being carried under the ocean through a wire, to be reproduced three thousand miles away with every intonation and modulation characteristic of the speaker. This invention will supersede the dynamograph, which is a machine invented for reproducing type-writing by means of the electrical current. A person using a writing-machine at one end of the line has his record reproduced at the other end, the machine being automatically adjusted as regards spacing, etc.

Chronic Bronchitis and its Treatment. A Clinical Study. By WILLIAM MURRELL, M.D., F.R.C.P., Lecturer on Pharmacology and Therapeutics at the Westminster Hospital. Cloth, 12mo, 176 pp. London: H. K. Lewis, 1889.

The little brochure from the pen of Dr. Murrell, although small in compass, is rich in practical suggestions, and in the experience which he thus places at the service of his brother practitioner much will be found that can be applied in daily work. Several pages are taken up with a suitable introduction, but if our author had confined himself to the study of old-fashioned cough-mixtures, his book would have received but little attention. A single sentence in the introduction will serve to bring out more distinctly the point we have in mind. It runs as follows: "The old-fashioned expectorant mixtures have been prescribed without stint, but when they fail, as is not uncommonly the case, we do not hesitate to resort to other methods of treatment." The treatment of chronic bronchitis is often marked by complications which are rather difficult to meet successfully, and we turn to Dr. Murrell with some expectation that good must result from an investigation and study of drugs which he recommends.

Accordingly, we find that he has used ipecac and other drugs in the form of spray; that he has used tar and its allies; that he has used terebene and similar remedies; cheken and cubebs, chloride of ammonium inhalations, as well as fuming inhalations. In many of the cases treated immediate and decided benefits have resulted, but, as is usual, in other cases the improvement has been less marked. A perusal of the work has more than repaid for the time expended, merely from the satisfaction of knowing the simple measures to be adopted for the application of the various preparations. As a means of increasing one's capacity for treating disease, the book is a mine of wealth.

That section of the work given to the subject of the treatment of winter cough by the exhibition of pure terebene has attracted the reviewer more than anything else, and he is therefore disposed to emphasize his approval of that particular drug. The reasons therefor will appear when we take into consideration the method of preparation, namely, by the action of sulphuric acid on oil of turpentine and subsequent distillation. It thus contains the stimulating properties of tur-

pentine and the astringent action of sulphuric acid. Murrell's investigations with it in the test-tube show that it is a powerful agent in preventing the development of micro-organisms; and his researches further indicate that it possesses properties which counteract fermentation, and it is thus used with advantage in flatulency. When we bear in mind that this product, that is, the combination, is excreted both by the lungs and by the kidneys, we may estimate, but cannot calculate, the influence which it exerts as an antiseptic. That it is well calculated to take the place of expectorants as ordinarily used will be apparent to the most obtuse when it is stated that alkalies, as a rule, are contra-indicated in the treatment of chronic bronchitis. Generally the secretions are too profuse, and acids should be used to counteract this debilitating effect upon the organism; again, those suffering from this affection are often run down, and require something in the nature of a stimulant, but the turpentine in this form will be found far more efficient than alkalies, and, besides, it is free from the objections which attach to ammonium carbonate and the like, and does not carry with it the depressing effects which attend upon the use of ipecac, senega, lobelia, and other preparations of this class.

For several years past the writer has used terebene in various affections, and generally with very good effect, and as it can now be obtained in the form of capsules, there is no doubt but that the chronic cases of bronchitis which will prevail as a result of "la grippe" in this and other countries will receive most marked benefit from the exhibition of this drug. Its astringent, stimulating, antiparasitic and antifermentative properties certainly entitle it to a prominent place in our therapeutic resources during the coming three months, and those who wish to use it and its allies will do well to consult Dr. Murrell's little brochure.

Hand-book of Materia Medica, Pharmacy, and Therapeutics, including the Physiological Action of Drugs, the Special Therapeutics of Disease, Official and Extemporaneous Pharmacy, and Minute Directions for Prescription-Writing. By SAMUEL O. L. POTTER, M.A., M.D., Professor of the Theory and Practice of Medicine in the Cooper Medical College of San Francisco, Cal., etc. Second edition, revised and enlarged. Cloth, 8vo, pp. 766. Philadelphia: P. Blakiston, Son & Co. 1890. Price, $4.

But three years have elapsed since the first edition of this hand-book appeared, and the author is to be congratulated that in making a second edition the publishers have seen fit to present the work in a more imposing and attractive form than formerly. The size of the page has been increased, leads have been inserted, and while some new and valuable matter has been added, the number of pages is still below that of the first edition, but the *tout ensemble* from a mechanical stand-point indicates that it possibly may some day prove a formidable competitor of such works as Bartholow and Wood. The reviewer having long entertained a favorable opinion of the author's ability, and believing that the practical value of this excellent work, which has been received on both sides of the Atlantic with such flattering compliments, is still susceptible of improvement, he is disposed to offer some suggestions regarding the weak points, while at the same time indicating to the general practitioner some of the contrasts between it and the works of the two authors just mentioned.

In this connection, however, it should be understood at the beginning that we have no fault to find with the general character of Dr. Potter's work. The author's statements are concise, exact, compact, and his diction faultless; no one, perhaps, in this country at least, excels him in the perspicuity of his condensations and the completeness of his work in respect to the many details involved in authorship. This special faculty, however, is liable to be overdone; the particulars as to differentiation in the treatment of subjects of a therapeutical nature may, possibly, be carried too far. What we want is not less perspicience in condensation, nor fewer details regarding the indications for the exhibition of particular drugs, but rather we should like to have a combination of these traits made with a view to dovetail with the demands of the general practitioner; in other words, we would like to have *applied therapeutics* embodied with the study of the principles underlying the application of drugs.

Dr. Potter has compiled an immense amount of material under the head of Special or Applied Therapeutics, embracing more than two hundred pages of the book, in which are given the prescriptions of a large number of authorities, besides those claimed by himself, for the relief of various disorders, each of the authors being duly credited, and the reviewer is strongly of the opinion that such information would be far more accessible, and therefore of more practical value if embodied in that part of the work devoted to materia medica. In the works of Bartholow, Ringer, Wood, and Brunton, this portion is permitted to appear in the form of a clinical index, and so long as our author is content to have his work appear as a manual, or simply a hand-book, the method as such may have its advantages, but the character of the work as well as its popularity is sufficient to warrant the author in assuming that he is now entitled to occupy a more advanced position in the field of therapeutics. No one will question the advisability of this procedure, nor is it likely that any one will

complain that such a method would be trenching upon the domain of practice.

A considerable proportion of the success which has attended the floating of Bartholow's book is doubtless due to his method of following the plan just outlined, but Bartholow is comparatively barren as respects information upon materia medica, pure and simple. While Potter teaches in his condensations the theory of medication, Bartholow goes farther and teaches the direct application of this theory, and finally clinches his argument by means of a working formula. Bartholow's reviewers say the plan facilitates prescription writing, but the writer is of the opinion that it supplies the general practitioner with an actual weapon, something tangible, convenient, effective. Wood, on the other hand, is largely engaged in the study of physiological action; each author quoted is allowed his turn at the drug under consideration, whole pages being devoted to ephemeral speculations, but at the close the cobwebs are brushed aside by a statement that all of the theories are probably wrong or founded upon premises not warranted by the facts. But discursive philosophy as applied to therapeutics is not practical, the best illustration being found in Dr. Wood's own book. It certainly has a tendency to confine, limit, or dwarf the applications of the drug, pages being taken up with discussions, and only as many lines given to therapeutics. As compared with the others, Dr. Potter's book has all the elements requisite for success, or, shall we say, exceptional popularity, and we suggest that these elements be submitted to the process called fusion, so that with the next appearance of the book we shall see, not a differentiated system coupled together by imaginary hinges, but a complex product representing nuggets of wisdom that embrace not only materia medica, but physiology, toxicology, and therapeutics that shine with a lustre and carry with them a richness which compare favorably with the precious stones and auriferous particles found in the Occident.

CURRENT MEDICAL LITERATURE

The Philosophy of Eating and Drinking from a Dental and Medical Stand-point, with Personal Experiences. By W. G. A. Bonwill, D.D.S. Read before the Odontological Society of Pennsylvania, April 7, 1888. Philadelphia, 1889.

Concealed Pregnancy; Its Relations to Abdominal Surgery. By Albert Vander Veer, M.D., Professor of Didactic, Abdominal, and Clinical Surgery in the Albany Medical College; Fellow of the British Gynæcological Society; Fellow of the American Association of Obstetricians and Gynæcologists; Corresponding Member of the Boston Gynæcological Society, etc. Read in the Section on Obstetrics and Diseases of Women and Children, American Medical Association, Newport, June, 1889. Reprinted from the American Journal of Obstetrics and Diseases of Women and Children, November, 1889. New York: William Wood & Co., Publishers, 1889.

A Plea in Favor of Early Laparotomy for Catarrhal and Ulcerative Appendicitis, with the Report of Two Cases. By N. Senn, M.D., Ph.D., of Milwaukee, Wis., Professor of Principles of Surgery and Surgical Pathology in the Rush Medical College, Chicago, Ill. Reprinted from the Journal of the American Medical Association, November 2, 1889. Chicago, 1889.

The Proposed New Lunacy Law. By Frederick Peterson, M.D., Pathologist to the New York City Lunatic Asylums; Lecturer on Nervous and Mental Disease at the New York Polyclinic. Reprinted from the Medical Record, October 19, 1889. New York, 1889.

How to Take Care of the Lungs. By Lawrence F. Flick, M.D. Read before the Alumni Association of the Philadelphia College of Pharmacy, at its Fifth Social Meeting, on February 12, 1889. Philadelphia, 1889.

Abstract of Proceedings of the Michigan State Board of Health. Regular Meeting, October 8, 1889.

Proceedings and Addresses at a Sanitary Convention held at Otsego, Michigan, May 2 and 3, 1889, Under the Direction of a Committee of the State Board of Health and a Committee of Citizens of Otsego. Supplement to the Report of the Michigan State Board of Health for the year 1889. Lansing, 1889.

Proceedings and Addresses at a Sanitary Convention held at Tecumseh, Michigan, June 6 and 7, 1889, under the Direction of a Committee of the State Board of Health and a Committee of Citizens of Tecumseh. Supplement to the Report of the Michigan State Board of Health for the year 1889. Lansing, 1889.

Analyses of Foods for Infants and Invalids, by Albert R. Leeds, Ph.D., Professor in the Stevens Institute of Technology, Hoboken, N. J.

Address of James A. Hopkins, M.D., of Milton, Del., President of the Delaware State Medical Society, at the ninety-ninth annual meeting of the Society, held at Georgetown, Del., Tuesday, June 12, 1888.

Some Observations on the Conformation of the Human Cranium, by Chas. H. Merz, A.M., M.D., Lecturer on Pathology and Microscopy in the Medical Department of Wooster University, Cleveland, Ohio.

COMMERCIAL NEWS.

CALENDAR.

We have received from the McArthur Hypophosphite Company a pretty calendar for 1890, which we are informed they publish and mail to physicians only.

Any physician may obtain one by writing to them at 30 Hanover Street, Boston, Mass.

Their advertisement appears on page 5 of this issue.

FOR SALE.

A large orange grove, 500 bearing budded trees; 400 more coming in soon; other fruits; wood enough for a century; new six-roomed house, well furnished; excellent water, and an excellent opening for a doctor.

Address, with a *self-addressed stamped* envelope, DR. A. LIVEZEY,
St. Nicholas, Fla.

N.B. Price, $6000, one-third cash.

ALETRIS CORDIAL.

IRREGULAR MENSTRUATION, LEUCORRHŒA.

℞ Celerina, ... 4 oz.
Aletris Cordial (Rio), . . 4 oz.

Dose, 2 teaspoonfuls half an hour before meals.

Dr. Prevost, Cambremer, Calvados, France, says: I tried Aletris Cordial in the case of a young lady, 20 years of age, who, for the last seven years, ever since she attained the age of puberty, had been most irregular in her periods. She had consulted various doctors, who had all prescribed for her, but none had succeeded in affording her relief. She is a girl of irreproachable character, and is certainly not *enceinte*. Sometimes her periods occur at intervals of four months, sometimes three, and at others six. Eventually she came to consult me, and I prescribed Aletris Cordial, having already used it in another case with very good results. She is already very much better. I have also used it for a young woman of 22 years of age, who was suffering from peritonitis consequent on her confinement, which, although it passed off well, was not without subsequent *contretemps* of a serious nature. Three months elapsed and her periods had not resumed. I gave her the Aletris and her periods re-appeared copiously. She is now in excellent health. I also gave it to a young girl of 17 or 18, who was similarly situated as the first named, and in this case it answered admirably.

A BARGAIN FOR MEDICAL STUDENTS.

One White's Physiological Manikin with key, one Yaggy's Anatomical Study with key, both as good as new, at 30-per-cent. discount. Address, S. K. HEEBNER,
Hatfield, Montgomery Co., Pa.

WARNER'S ANTISEPTIC PASTILLES.

Following a suggestion recently made by Dr. C. Seiler in the Medical Record, Messrs. William R. Warner & Co., the well-known pill and compressed pastille manufacturers, of Philadelphia, are now placing on the market antiseptic pastilles for the treatment of certain nasal affections. These pastilles are not only powerfully antiseptic and comparatively innocuous, but also distinctly deodorant, as sodium bicarbonate, sodium biborate, sodium benzoate, sodium salicylate, menthol, and oil of wintergreen enter into their composition. One of the pastilles makes 2 ounces of a lotion or spray for the nostrils, and it is, according to Dr. Seiler, "sufficiently alkaline to dissolve the thickened secretion adhering to the nasal mucous membrane, and as it is of proper density, it is bland and unirritating, leaving a pleasant feeling in the nose. As an antiseptic and deodorizer it is also far superior to Dobell's solution, or any other non-irritating deodorizer and antiseptic." The pastilles are introduced here by Messrs. F. Newbery & Sons, of King Edward Street, London, E. C.—*The Chemist and Druggist.*

PROFESSOR LOISETTE'S MEMORY SYSTEM

is creating greater interest than ever in all parts of the country, and persons wishing to improve their memory should send for his prospectus free, as advertised in another column.

INDEX TO ADVERTISEMENTS.

A classified index of advertisements appearing in the MEDICAL BULLETIN will be found on page 39 of the current issue.